
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16 OF
THE SECURITIES EXCHANGE ACT OF 1934**

For the month of May 2020
Commission File No.: 000-30668

NOVA MEASURING INSTRUMENTS LTD.

(Translation of registrant's name into English)

**Building 22 Weizmann Science Park, Rehovot
P.O.B 266
Israel**

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ____

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ____

Attached hereto and incorporated by way of reference herein are the following documents:

1. The Registrant's Notice of Annual General Meeting of Shareholders and Proxy Statement for its 2020 Annual General Meeting of Shareholders.
2. Proxy card for use regarding the Registrant's 2020 Annual General Meeting of Shareholders.

This report on Form 6-K is hereby incorporated by reference into the Registrant's registration statements on Form S-8, filed with the Securities and Exchange Commission on the following dates: November 5, 2007 (File No. 333-147140); October 25, 2012 (File No. 333-184585), March 6, 2015 (File No. 333-202550); and August 25, 2017 (File No. 333-220158).

Exhibit Index

[99.1 Notice of Annual General Meeting of Shareholders and Proxy Statement](#)

[99.2 Proxy Card](#)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NOVA MEASURING INSTRUMENTS LTD.
(Registrant)

Date: May 19, 2020

By: *Isi Dror David*

Dror David
Chief Financial Officer

NOVA MEASURING INSTRUMENTS LTD.

NOTICE OF ANNUAL GENERAL MEETING OF SHAREHOLDERS

Notice is hereby given that the annual general meeting of shareholders (the "Meeting") of Nova Measuring Instruments Ltd. (the "Company") will be held on Thursday, June 25, 2020, at 5:00 p.m. Israel time (10:00 a.m. Eastern time), at the Company's offices, located at 5 David Fikes St., Rehovot 7610201, Israel.

The agenda of the Meeting shall be as follows:

1. Approval of the re-election of each of Dr. Michael Brunstein, Mr. Avi Cohen, Mr. Raanan Cohen, Ms. Dafna Gruber, Mr. Ronnie (Miron) Kenneth and Ms. Zehava Simon, and election of Mr. Eitan Oppenheim, as a director of the Company to hold office until the close of the next annual general meeting;
2. Approval of amendments to the employment terms of Mr. Eitan Oppenheim, the President and Chief Executive Officer of the Company;
3. Approval of an amendment to the Company's compensation policy for directors and officers to increase the maximum permitted annual premium for the Company's D&O insurance and ratification of the purchase of the Company's D&O insurance policy;
4. Approval of amendments to the memorandum and articles of association of the Company; and
5. Approval and ratification of the re-appointment of Kost Forer Gabbay & Kasierer, a member of Ernest & Young, as the independent auditors of the Company for the period ending at the close of the next annual general meeting.

In addition, the shareholders will be requested to consider at the Meeting the Company's audited consolidated financial statements for the year ended December 31, 2019.

We know of no other matters to be submitted at the Meeting other than as specified herein. If any other business is properly brought before the Meeting, the persons named as proxies may vote in respect thereof in accordance with their best judgment.

In accordance with the Israeli Companies Law 5759-1999, and regulations promulgated thereunder (the "Companies Law"), any shareholder of the Company holding at least one percent of the outstanding voting rights of the Company for the Meeting may submit to the Company a proposed additional agenda item for the Meeting, to the Company's offices, c/o Ms. Leeat Peleg, Adv., at 5 David Fikes St., Rehovot 7610201, Israel, no later than Tuesday, May 26, 2020. To the extent that there are any additional agenda items that the board of directors determines to add as a result of any such submission, the Company will publish an updated agenda and proxy card with respect to the Meeting, no later than Tuesday, June 2, 2020, which will be furnished to the U.S. Securities and Exchange Commission (the "Commission") on Form 6-K, and will be made available to the public on the Commission's website at <http://www.sec.gov> and in addition at <http://www.magna.isa.gov.il> or <http://mava.tase.co.il>.

The approval of each of the Proposals requires the affirmative vote of the Company's shareholders holding at least a majority of the Company's ordinary shares ("Shares") present, in person or by proxy, and voting on the matter.

The approval of Proposal No. 3 is also subject to the fulfillment of one of the following additional voting requirements: (i) the majority of the Shares that are voted at the Meeting in favor of the Proposal, excluding abstentions, includes a majority of the votes of shareholders who are not controlling shareholders or do not have a personal interest in the approval of the Proposal; or (ii) the total number of Shares of the shareholders mentioned in clause (i) above that are voted against the Proposal does not exceed two percent (2%) of the total voting rights in the Company.

For this purpose, a "controlling shareholder" is any shareholder that has the ability to direct the Company's activities (other than by means of being a director or office holder of the Company. A person is presumed to be a controlling shareholder if it holds or controls, by himself or together with others, one half or more of any one of the "means of control" of a company. "Means of control" is defined as any one of the following: (i) the right to vote at a general meeting of a company, or (ii) the right to appoint directors of a company or its chief executive officer. A "personal interest" of a shareholder in an action or transaction of a company includes a personal interest of any of the shareholder's relatives (i.e. spouse, brother or sister, parent, grandparent, child as well as child, brother, sister or parent of such shareholder's spouse or the spouse of any of the above) or an interest of a company with respect to which the shareholder or the shareholder's relative (as defined above) holds 5% or more of such company's issued shares or voting rights, in which any such person has the right to appoint a director or the chief executive officer or in which any such person serves as director or the chief executive officer, including the personal interest of a person voting pursuant to a proxy which the proxy grantor has a personal interest, whether or not the person voting pursuant to such proxy has discretion with regards to the vote; and excludes an interest arising solely from the ownership of ordinary shares of a company.

If a shareholder does not state whether he or she is a controlling shareholder or has personal interest, these Shares will not be voted for Proposal No. 3.

In connection with Proposal 3, the Companies Law allows the Board to approve such proposal even if the general meeting of shareholders has voted against its approval, provided that the Company's compensation committee, and thereafter the Board, each determines to approve it, based on detailed arguments, and after having reconsidered the matter and concluded that such action is in the best interest of the Company.

Only shareholders of record at the close of business on May 26, 2020 (the "Record Date") will be entitled to receive notice of, and to vote at the Meeting. All shareholders are cordially invited to attend the Meeting in person.

As of May 15, 2020, the Company had 28,072,716 issued and outstanding Shares, each of which is entitled to one vote upon the matters to be presented at the Meeting.

Shareholders who will not attend the Meeting in person may vote with respect to Proposal Nos. 1 through 5 by means of a proxy card and are obliged to complete, sign, date and return the proxy card no later than four hours before the time of the Meeting (i.e., 1:00 p.m. (Israel time) on June 25, 2020). A form of proxy card will be enclosed with the proxy statement. The form of proxy card was also furnished to the Commission on Form 6-K, and is available to the public on the Commission's website at <http://www.sec.gov> and in addition at <http://www.magna.isa.gov.il> or <http://maya.tase.co.il>.

All Shares represented by properly executed proxies received prior to or at the Meeting and not revoked prior to, or at, the Meeting in accordance with the procedures described in the proxy statement, will be voted as specified in the instructions indicated in such proxies. Subject to applicable law and the rules of the Nasdaq Stock Market, in the absence of such instructions, the Shares represented by properly executed and received proxies will be voted "FOR" all of the proposed resolutions to be presented at the Meeting for which the Company's board of directors recommends a "FOR", other than Proposal No. 3.

We currently intend to hold the Meeting in person. However, depending on developments with respect to the coronavirus (COVID-19) pandemic, we might hold the Meeting virtually on the above date and time instead of in person. If we determine that a change to a virtual meeting format is advisable or required, an announcement of such change will be made on our Investor Relations website at <https://www.novami.com/investors/lobby/> and on Form 6-K as promptly as practicable. We encourage you to check this website one week prior to the meeting date if you are planning to attend the Meeting.

Shareholders wishing to express their position on an agenda item for this Meeting may do so by submitting a written statement ("Position Statement") to the Company's offices, c/o Ms. Leeat Peleg, Adv., at 5 David Fikes St., Rehovot 7610201, Israel. Any Position Statement received will be furnished to the Commission on Form 6-K, and will be made available to the public on the Commission's website at <http://www.sec.gov> and in addition at <http://www.magna.isa.gov.il> or <http://maya.tase.co.il>. Position Statements should be submitted to the Company no later than June 15, 2020.

A shareholder is entitled to contact the Company directly and receive the text of the proxy card and any Position Statement.

A shareholder, whose Shares are registered with a TASE member and are not registered on the Company's shareholder's register, is entitled to receive from the TASE member who holds the Shares on the shareholder's behalf, by e-mail, for no charge, a link to the text of proxy card and to the Position Statements posted on the Israel Securities Authority website, unless the shareholder notified that he or she is not so interested; provided, that the notice was provided with respect to a particular securities account, prior to the Record Date.

A shareholder, whose Shares are registered with a member of the TASE, is required to prove his or her Share ownership to vote at the Meeting. Such shareholder shall provide the Company with an ownership certificate (as of the Record Date) from that TASE member and is entitled to receive the ownership certificate in the branch of the TASE member or by mail to his address (in consideration of mailing fees only), if the shareholder so requested. Such a request will be made in advance for a particular securities account. Alternatively, shareholders who hold Shares through members of the TASE may vote electronically via the electronic voting system of the Israel Securities Authority up to six hours before the time fixed for the Meeting. Such shareholder should receive instructions about electronic voting from the TASE member through which he or she holds the Shares.

Discussion at the Meeting will be commenced if a quorum is present. A quorum is constituted by two or more shareholders who are present in person or by proxy, or who have delivered to the Company a proxy card indicating their manner of voting, and who hold or represent Shares conferring in the aggregate at least one-third (33.33%) of the voting power in the Company. For this purpose, abstaining shareholders shall be deemed present at the meeting. If a quorum is not present within half an hour of the time designated for the Meeting, the Meeting will be adjourned to July 2, 2020, at the same time and place. At the adjourned Meeting, any number of shareholders who are present in person or proxy, or who have delivered a proxy card, will constitute a quorum.

The wording of the resolutions to be voted at the Meeting and relevant documents thereto may be inspected at the Company's offices, which are located at the 5 David Fikes St., Rehovot 7610201, Israel, during normal business hours and by prior coordination with Ms. Leeat Peleg, Adv. (Tel: +972-73-229-5600).

By the Order of the Board of Directors,



Dr. Michael Brunstein
Chairman of the Board of Directors of the Company

Dated: May 19, 2020

NOVA MEASURING INSTRUMENTS LTD.

5 David Fikes St., Rehovot
Israel

PROXY STATEMENT

ANNUAL GENERAL MEETING OF SHAREHOLDERS

TO BE HELD ON JUNE 25, 2020

This proxy statement is furnished to the holders of ordinary shares, par value NIS 0.01 per share (the "Shares"), of Nova Measuring Instrument Ltd. in connection with the annual general meeting of shareholders of the Company to be held at the Company's offices at the 5 David Fikes St., Rehovot 7610201, Israel on Thursday, June 25, 2020, at 5:00 p.m. Israel time (10:00 a.m. Eastern time), and thereafter as it may be adjourned from time to time (the "Meeting"). Unless the context otherwise requires, references in this Proxy Statement to "Nova," the "Company," "we" or "our" refer to Nova Measuring Instruments Ltd.

At the Meeting, the following resolutions will be proposed for adoption by the shareholders:

1. Approval of the re-election of each of Dr. Michael Brunstein, Mr. Avi Cohen, Mr. Raanan Cohen, Ms. Dafna Gruber, Mr. Ronnie (Miron) Kenneth and Ms. Zehava Simon, and election of Mr. Eitan Oppenheim, as a director of the Company to hold office until the close of the next annual general meeting;
2. Approval of amendments to the employment terms of Mr. Eitan Oppenheim, the President and Chief Executive Officer of the Company;
3. Approval of an amendment to the Company's compensation policy for directors and officers to increase the maximum permitted annual premium for the Company's D&O insurance and ratification of the purchase of the Company's D&O insurance policy;
4. Approval of amendments to the memorandum and articles of association of the Company; and
5. Approval and ratification of the re-appointment of Kost Forer Gabbay & Kasierer, a member of Ernest & Young, as the independent auditors of the Company for the period ending at the close of the next annual general meeting.

In addition, the shareholders will be requested to consider at the Meeting the Company's audited consolidated financial statements for the year ended December 31, 2019.

Shareholders Entitled to Vote

Only holders of record of Shares at the close of business on May 26, 2020 (the "Record Date") are entitled to receive notice of, and to vote at, the Meeting.

As of May 15, 2020, the Company had 28,072,716 issued and outstanding Shares. Each Share is entitled to one vote on each matter to be voted on at the Meeting. The votes of all shareholders voting on a matter are counted and abstentions are not taken into account (other than for quorum purposes).

We currently intend to hold the Meeting in person. However, depending on developments with respect to the coronavirus (COVID-19) pandemic, we might hold the Meeting virtually on the above date and time instead of in person. If we determine that a change to a virtual meeting format is advisable or required, an announcement of such change will be made on our Investor Relations website at <https://www.novami.com/investors/lobby/> and on Form 6-K as promptly as practicable. We encourage you to check this website one week prior to the meeting date if you are planning to attend the Meeting.

Proxies

All shareholders who are unable to attend the Meeting in person are requested to complete, date and sign the enclosed form of proxy and return it promptly in the pre-addressed envelope provided.

If you hold ordinary shares in "street name," that is, you are an underlying beneficial holder who holds ordinary shares through a bank, broker or other nominee, the voting process will be based on your directing the bank, broker or other nominee to vote the ordinary shares in accordance with the voting instructions on your voting instruction card. Because a beneficial owner is not a shareholder of record, you may not vote those shares directly at the Meeting unless you obtain a "legal proxy" from the bank, broker or nominee that holds your shares, giving you the right to vote the shares at the Meeting.

Please follow the instructions on the proxy card or voting instruction card received from your bank, broker or nominee. You may also be able to submit voting instructions to a bank, broker or nominee by phone or via the Internet if your voting instruction card describes such voting methods. Please be certain to have your control number from your voting instruction card ready for use in providing your voting instructions.

It is important for a shareholder that holds ordinary shares through a bank or broker to instruct its bank or broker how to vote its shares if the shareholder wants its shares to count for the Proposal.

A shareholder, whose Shares are registered with a TASE member and are not registered on the Company's shareholders' register, is entitled to receive from the TASE member who holds the Shares on the shareholder's behalf, by e-mail, for no charge, a link to the text of proxy card and to the position statements posted on the Israel Securities Authority website, unless the shareholder notified that he or she is not so interested; provided, that the notice was provided with respect to a particular securities account, prior to the Record Date. A shareholder, whose Shares are registered with a member of the TASE, is required to prove his or her Share ownership to vote at the Meeting. Such shareholder shall provide the Company with an ownership certificate (as of the Record Date) from that TASE member and is entitled to receive the ownership certificate in the branch of the TASE member or by mail to his address (in consideration of mailing fees only), if the shareholder so requested. Such a request will be made in advance for a particular securities account. Alternatively, shareholders who hold Shares through members of the TASE may vote electronically via the electronic voting system of the Israel Securities Authority up to six hours before the time fixed for the Meeting. You should receive instructions about electronic voting from the TASE member through which you hold your Shares.

Upon the receipt of a properly executed proxy in the form enclosed herewith, the persons named as proxies therein will vote the Shares covered thereby in accordance with the directions of the shareholder executing such proxy. Subject to applicable law and the rules of the Nasdaq Stock Market, in the absence of such instructions, the Shares represented by properly executed and received proxies will be voted "FOR" all of the proposed resolutions to be presented at the Meeting for which the Company's board of directors (the "**Board**") recommends a "FOR", other than Proposal No. 3.

Position Statements

Shareholders wishing to express their position on an agenda item for this Meeting may do so by submitting a written statement ("**Position Statement**") to the Company's offices, c/o Ms. Leeat Peleg, Adv., at 5 David Fikes St., Rehovot 7610201, Israel. Any Position Statement received will be furnished to the Securities and Exchange Commission (the "**Commission**") on Form 6-K, and will be made available to the public on the Commission's website at <http://www.sec.gov> and in addition at <http://www.magna.isa.gov.il> or <http://maya.tase.co.il>. Position Statements should be submitted to the Company no later than June 15, 2020.

Meeting Agenda

In accordance with the Israeli Companies Law 5759-1999, and regulations promulgated thereunder (the "**Companies Law**"), any shareholder of the Company holding at least one percent of the outstanding voting rights of the Company for the Meeting may submit to the Company a proposed additional agenda item for the Meeting, to the Company's offices, c/o Ms. Leeat Peleg, Adv., at 5 David Fikes St., Rehovot 7610201, Israel, no later than Tuesday, May 26, 2020. To the extent that there are any additional agenda items that the Board determines to add as a result of any such submission, the Company will publish an updated agenda and proxy card with respect to the Meeting, no later than Tuesday, June 2, 2020, which will be furnished to the Commission on Form 6-K, and will be made available to the public on the Commission's website at <http://www.sec.gov> and in addition at <http://www.magna.isa.gov.il> or <http://maya.tase.co.il>.

Expenses and Solicitation

The Company expects to solicit proxies by mail and to mail this proxy statement and the accompanying proxy card to shareholders on or about June 2, 2020. This proxy statement and the accompanying proxy card are also available to the public through the following websites: <http://www.magna.isa.gov.il>, <http://mava.tase.co.il> or <http://www.sec.gov>.

All costs of solicitation of proxies will be borne by the Company. In addition to solicitations by mail, certain of the Company's directors, officers and regular employees, without additional remuneration, may solicit proxies by telephone, telegraph and personal interviews. Brokers, custodians and fiduciaries will be requested to forward proxy soliciting material to the beneficial owners of Shares held in their names, and the Company will reimburse them for their reasonable out-of-pocket costs.

Quorum and Voting Requirements

The quorum required consists of two or more shareholders who are present in person or proxy (or who have delivered a proxy card indicating their manner of voting) and who together hold or represent Shares conferring in the aggregate at least one third (33.33%) of the voting power in the Company. For this purpose, abstaining shareholders shall be deemed present at the meeting. If a quorum is not present within one half hour of the time designated for the Meeting, the Meeting shall be adjourned to July 2, 2020, at the same time and place. At the adjourned Meeting, any number of shareholders who are present in person or by proxy, or who have delivered a proxy card, shall constitute a quorum.

The approval of each of the Proposals requires the affirmative vote of the Company's shareholders holding at least a majority of the Shares present, in person or by proxy, and voting on the matter.

The approval of Proposal No. 3 is also subject to the fulfillment of one of the following additional voting requirements: (i) the majority of the Shares that are voted at the Meeting in favor of the Proposal, excluding abstentions, includes a majority of the votes of shareholders who are not controlling shareholders or do not have a personal interest in the approval of the Proposal; or (ii) the total number of Shares of the shareholders mentioned in clause (i) above that are voted against the Proposal does not exceed two percent (2%) of the total voting rights in the Company.

For this purpose, a "controlling shareholder" is any shareholder that has the ability to direct the Company's activities (other than by means of being a director or office holder of the Company). A person is presumed to be a controlling shareholder if it holds or controls, by himself or together with others, one half or more of any one of the "means of control" of a company. "Means of control" is defined as any one of the following: (i) the right to vote at a general meeting of a company, or (ii) the right to appoint directors of a company or its chief executive officer. A "personal interest" of a shareholder in an action or transaction of a company includes a personal interest of any of the shareholder's relatives (i.e. spouse, brother or sister, parent, grandparent, child as well as child, brother, sister or parent of such shareholder's spouse or the spouse of any of the above) or an interest of a company with respect to which the shareholder or the shareholder's relative (as defined above) holds 5% or more of such company's issued shares or voting rights, in which any such person has the right to appoint a director or the chief executive officer or in which any such person serves as director or the chief executive officer, including the personal interest of a person voting pursuant to a proxy which the proxy grantor has a personal interest, whether or not the person voting pursuant to such proxy has discretion with regards to the vote; and excludes an interest arising solely from the ownership of ordinary shares of a company.

If you do not state whether you are a controlling shareholder or have personal interest, your Shares will not be voted for Proposal No. 3.

In connection with Proposal 3, the Companies Law allows the Board to approve such proposal even if the general meeting of shareholders has voted against its approval, provided that the Company's compensation committee, and thereafter the Board, each determines to approve it, based on detailed arguments, and after having reconsidered the matter and concluded that such action is in the best interest of the Company.

Reporting Requirements

We are subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), applicable to foreign private issuers. We fulfill these requirements by filing reports with the Commission. Our filings are available to the public on the Commission's website at <http://www.sec.gov>.

As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements. The circulation of this notice and proxy statement should not be taken as an admission that we are subject to the proxy rules under the Exchange Act.

AFTER CAREFUL CONSIDERATION, OUR BOARD RECOMMENDS THAT SHAREHOLDERS VOTE "FOR" THE PROPOSALS DESCRIBED IN THIS PROXY STATEMENT.

COMPENSATION OF EXECUTIVE OFFICERS AND DIRECTORS

The table below reflects the Company's compensation costs related to the employment of our five most highly compensated office holders (as defined in the Companies Law) with respect to the year ended December 31, 2019. We refer to the five individuals for whom disclosure is provided herein as our "Covered Executives." For purposes of the table below, "compensation" includes amounts accrued or paid in connection with salary, bonuses, equity-based compensation, retirement or termination payments, benefits and perquisites (such as car and phone), social benefits and any undertaking to provide such compensation. All amounts reported in the table are in terms of cost to the Company (in USD), as recognized in our financial statements for the year ended December 31, 2019, including compensation paid to such Covered Executives following the end of the year in respect of services provided during the year. Each of the Covered Executives was covered by our directors' and officers' liability insurance policy and was granted an indemnification letter as approved by our shareholders in accordance with applicable law and our articles of association.

| Name and Principal Position ⁽¹⁾ | Salary and benefits ⁽²⁾ | Bonus ⁽³⁾ | Equity-Based Compensation ⁽⁴⁾ | Total |
|--|------------------------------------|----------------------|--|-----------|
| | USD\$ | | | |
| Eitan Oppenheim Director, President and Chief Executive Officer | 564,502 | 513,339 | 1,032,907 | 2,110,747 |
| Dror David Chief Financial Officer | 343,271 | 119,966 | 198,796 | 662,034 |
| Shay Wolfing Chief Technology Officer | 327,061 | 114,785 | 179,629 | 621,475 |
| Gabriel Waisman Chief Business Officer | 318,099 | 119,231 | 142,022 | 579,352 |
| Gabriel Sharon Corporate Vice President Operations | 292,958 | 104,362 | 126,055 | 523,376 |

- (1) All Covered Executives are employed on a full time (100%) basis.
- (2) Includes the Covered Executive's gross salary and benefits and perquisites, including those mandated by applicable law. Such benefits and perquisites may include, to the extent applicable to the Covered Executives, payments, contributions and/or allocations for savings funds (e.g., Managers' Life Insurance Policy), education funds (referred to in Hebrew as "keren hishtalmut"), pension, severance, vacation, car or car allowance, medical insurances and benefits, risk insurance (e.g., life, disability, accident), telephone, convalescence pay, payments for social security, tax gross-up payments and other benefits and perquisites consistent with the Company's policies.
- (3) Amounts reported in this column refer to the cash incentives provided by the Company with respect to 2019, including the annual cash bonus for 2019, which have been provided for in the Company's financial statements for the year ended December 31, 2019, but paid during 2020. Such amounts exclude bonuses paid during 2019 which were provided for in the Company's financial statements for previous years.
- (4) Represents the equity-based compensation expenses recorded in the Company's consolidated financial statements for the year ended December 31, 2019, based on the equity fair value on the grant date, calculated in accordance with accounting guidance for equity-based compensation. For a discussion on the assumptions used in reaching this valuation, see Note 9 to our consolidated financial statements included in our annual report on Form 20-F for the year ended December 31, 2019 as filed with the Commission on March 12, 2020.

In addition, the Company's compensation costs related to our Chairman of the Board for the year ended December 31, 2019, as recognized in our financial statements for the year ended December 31, 2019, are detailed in the table below.

| Name and Principal Position | Service Payments | Bonus | Equity-Based Compensation ⁽¹⁾ | Total |
|---|------------------|-------|--|---------|
| | USD\$ | | | |
| Michael Brunstein Chairman of the Board of Directors | 110,000 | - | 376,470 | 486,470 |

The annual target bonus of the Company's President and Chief Executive Officer for the year ended December 31, 2019 was divided into the following discrete components that were weighted as follows (the "2019 Bonus Plan"):

| Component | Component Weight (as % of Total Target Bonus) |
|---|--|
| Company performance measures of profitability and revenues | 55% |
| Expanding the Company's organic growth engines, achieving certain strategic goals according to the Company's long-term strategic planning and customers' related objectives | 30% |
| A discretionary evaluation of the overall performance in the fiscal year by the compensation committee and the Board | 15% |

Each component was measured against a target that was determined by the compensation committee and the Board in February 12, 2019. In addition, the 2019 Bonus Plan payout was subject to certain thresholds related to the Company's revenue and profitability. These thresholds had been met in 2019. As required by the Company's compensation policy, the total annual cash bonuses awarded to all our executive officers in 2019 did not exceed 10% of our non-GAAP operating profit in 2019 as detailed in the Form 6-K furnished by the Company to the Commission on February 13, 2020.

The annual target bonus of the Company's President and Chief Executive Officer for the year ended December 31, 2020, as set by our compensation committee and the Board is divided into the following discrete components that will be weighted as follows (the "2020 Bonus Plan"):

| Component | Component Weight (as % of Total Target Bonus) |
|---|--|
| Company performance measures of profitability and revenues | 55% |
| Expanding the Company's organic growth engines, achieving certain strategic goals according to the Company's long-term strategic planning and customers' related objectives | 30% |
| A discretionary evaluation of the overall performance in the fiscal year by the compensation committee and the Board | 15% |

The 2020 Bonus Plan payout is subject to certain thresholds related to the Company's revenue and profitability. Further, in accordance with our compensation policy, the total annual cash bonuses awarded to all our executive officers in 2020 cannot exceed 10% of our non-GAAP operating profit for 2020.

PROPOSAL NO. 1

**APPROVAL OF THE RE-ELECTION OF EACH OF DR. MICHAEL BRUNSTEIN,
MR. AVI COHEN, MR. RAANAN COHEN, MS. DAFNA GRUBER, MR. RONNIE
(MIRON) KENNETH AND MS. ZEHAVA SIMON, AND ELECTION OF MR.
EITAN OPPENHAIM, AS A DIRECTOR OF THE COMPANY TO HOLD OFFICE
UNTIL THE CLOSE OF THE NEXT ANNUAL GENERAL MEETING**

At the Meeting, shareholders will be asked to approve the re-election of each of Dr. Michael Brunstein, Mr. Avi Cohen, Mr. Raanan Cohen, Ms. Dafna Gruber, Mr. Ronnie (Miron) Kenneth and Ms. Zehava Simon, and election of Mr. Eitan Oppenheim, as a director of the Company to hold office until the close of the next annual general meeting. Our Board has determined that each of the director nominees, other than Mr. Eitan Oppenheim, qualifies as an "independent director" under the rules of the Nasdaq Stock Market.

There are currently seven directors serving on the Board, all of whom are standing for re-election or election under this Proposal No. 1. All of our directors attended 90% or more of the meetings of the Board and its committees on which they served, held since the previous annual general meeting (or, in the case of Mr. Eitan Oppenheim, since his appointment as director by the Board).

Set out below are details on the directors standing for re-election or election:

Dr. Michael Brunstein was named chairman of our board of directors in June 2006, after serving as member of our board of directors from November 2003. During the years 1990 and 1999, Dr. Brunstein served as Managing Director of Applied Materials Israel Ltd. Prior to that, Dr. Brunstein served as President of Opal Inc., and as a Director of New Business Development in Optrotech Ltd. Dr. Brunstein holds a B.Sc. in Mathematics and Physics from The Hebrew University, Jerusalem, and a M.Sc. and a Ph.D. in Physics from Tel Aviv University, Israel.

Mr. Avi Cohen has served as a director of the Company since 2008. From July 2016 to September 2017 Mr. Cohen served as the Chief Executive Officer of MX1, a global media service provider founded in July 2016 as a result of a merger between RR Media Ltd., and SES Platform Services GmbH. From July 2012 and until its merger with SES Platform Services GmbH, Mr. Cohen served as the chief executive officer of RR Media Ltd. (previously known as RRsat Global Communications Network Ltd.), which was a public company traded on Nasdaq. Prior to that, until March 2012, Mr. Cohen served as President and Chief Executive Officer of Orbit Technologies, a public company traded on the TASE. Prior to joining Orbit in December 2008, Mr. Cohen served as Chief Operating Officer and Deputy to the chief executive officer of ECI Telecom Ltd. a leading supplier of best-in-class networking infrastructure equipment for carrier and service provider networks worldwide. Prior to joining ECI in September 2006, Mr. Cohen served in a variety of management positions at KLA-Tencor. From 2003 Mr. Avi Cohen was a Group Vice President, Corporate Officer and Member of the Executive Management Committee based at the corporate headquarters in the U.S. During his tenure, he successfully led the creation of KLA-Tencor's global Metrology Group. From 1995 he was the President of KLA-Tencor Israel responsible for the Optical Metrology Division. Before joining KLA-Tencor, Mr. Cohen also spent three years as Managing Director of Octel Communications, Israel, after serving as Chief Executive Officer of Allegro Intelligent Systems, which he founded and which was acquired by Octel. Mr. Cohen is currently a Director of BioFishency Ltd. ESC-BAZ Ltd., Beit Issie Shapiro, Israel Consumer Council and Israel Wine Institute. Mr. Cohen holds B.Sc. and M.Sc. degrees in electrical engineering and applied physics from Case Western Reserve University, USA.

Mr. Raanan Cohen was appointed as a director of the Company by our board of directors in February 2014. Prior to that and until December 2012, Mr. Cohen has served as the President and Chief Executive Officer of Orbotech Ltd., a public company traded on Nasdaq. Mr. Cohen has also served in a range of other executive positions at Orbotech Ltd, including Co-President for Business and Strategy, EVP and President of the Printed Circuit Board (PCB) Division, Vice President for the PCB-AOI product line and President and chief executive officer of Orbotech, Inc. Prior to its merger with Orbotech in 1991, Mr. Cohen held various positions at Orbot, another manufacturer of AOI systems. Prior to joining Orbot in 1984, he worked at Telrad Networks Ltd. Mr. Cohen currently serves as the Chief Executive Officer of EyeWay Vision Ltd., a private company. Mr. Cohen holds a B.Sc. in Computer Science from the Hebrew University in Jerusalem, Israel.

Ms. Zehava Simon was elected as the Company's external director in accordance with the provisions of the Companies Law in June 2014 and reelected in June 2017. Effective as of May 2018, and our adoption of the exemption under the Regulation (as defined below), Ms. Simon is no longer classified as an external director under the Companies Law. Ms. Simon served as a Vice President of BMC Software from 2000 until 2013 and in her last position (as of 2011) acted as Vice President of Corporate Development. From 2002 to 2011, Ms. Simon served as Vice President and General Manager of BMC Software in Israel. In this role, she was responsible for directing operations in Israel and India as well as offshore sites. Prior to that, Ms. Simon held various positions at Intel Israel., which she joined in 1982, including leading of Finance & Operations and Business Development for Intel in Israel. Ms. Simon is currently a board member of Audiocodes, a public company traded on Nasdaq and TASE, Nice Systems, a public company traded on Nasdaq and TASE, and Amiad water systems, a public company traded on London Stock Exchange. Ms. Simon is a former member of the board of directors of Insightec Ltd. (2005-2012), M-Systems Ltd., a Nasdaq listed company which was acquired in 2006 by SanDisk Corp., a public company traded on Nasdaq as well (2005-2006) and Tower Semiconductor Ltd., a public company traded on TASE and Nasdaq (1999-2004). Ms. Simon holds a B.A. in Social Sciences from the Hebrew University, Jerusalem, Israel, a law degree (LL.B.) from the Interdisciplinary Center in Herzliya and an M.A. in Business and Management from Boston University, USA.

Ms. Dafna Gruber was elected as the Company's external director in accordance with the provisions of the Companies Law in April 2015 and reelected in April 2018. Effective as of May 2018, and our adoption of the exemption under the Regulation, Ms. Gruber is no longer classified as an external director under the Companies Law. Ms. Gruber has 27 years of broad experience, serving as chief financial officer and a senior executive management member in leading hi-tech companies traded on both Nasdaq and TASE. Since February 2019, Ms. Gruber has been serving as chief financial officer of Aqua security Ltd., a private company. From September 2017 until February 2019, Ms. Gruber served as the chief financial officer of Landa Corporation Ltd., and then as financial advisor to Landa group. From October 2015 until September 2017, Ms. Gruber has been serving as the chief financial officer of Clal Industries Ltd., a private company. From April 2007 until April 2015, Ms. Gruber served as the chief financial officer of Nice Systems Ltd., a public company traded on Nasdaq and TASE. As a member of the senior management team, Ms. Gruber was a senior member of the strategy and M&A forum of the company. During her employment with Nice, Ms. Gruber was responsible, *inter alia*, for finance, operation, MIS and IT, legal and investor relations. From 1996 until May 2007, Ms. Gruber was part of Alvarion Ltd., a public company traded on Nasdaq and TASE, mostly as chief financial officer. Prior to that, from 1993 to 1996, Ms. Gruber was a controller at Lannet Data Communications Ltd., subsequently acquired by Lucent Technologies Inc. Ms. Gruber serves as an external director at TAT Technologies Ltd., a public company traded on Nasdaq and TASE, since November 2013, and as an external director at Tufin software technologies Ltd., a public company traded on NYSE since April 2019. Ms. Gruber is a certified public accountant and holds a Bachelor's degree in Accounting and Economics from Tel Aviv University, Israel.

Mr. Ronnie (Miron) Kenneth was appointed to serve as a director of the Company by our board of directors in December 2017 and was reappointed by our shareholders in April 2018. Mr. Kenneth is a veteran high-tech leader who served for ten years as Chairman and Chief Executive Officer at Voltaire Technologies Ltd. (Nasdaq: VOLT), leading it to an initial public offering on Nasdaq in 2007. Following Voltaire's merger with Mellanox Technologies Ltd. (Nasdaq: MLNX) in 2011, Mr. Kenneth became the Chief Executive Officer of Pontis Ltd., a privately-held company, until 2013. Mr. Kenneth currently serves as the Chairman of Teridion Technologies Ltd., and Varada Ltd., and he is a director of Allot Communications Ltd. (Nasdaq: ALLT) and Orbotech Ltd. (Nasdaq: ORBK). Mr. Kenneth holds a BA in Economics and Computer Science from the Bar-Ilan University and an MBA from the Golden Gate University, San Francisco.

Mr. Eitan Oppenheim has been serving as the President and Chief Executive Officer of the Company since July 31, 2013, and was appointed by our board of directors to also serve as a director of the Company in October 2019. He has previously served as the Executive Vice President Global Business Group, since November 2010. From 2009 until 2010, Mr. Oppenheim served as Vice President and Europe General Manager of Alvarion Ltd., a public company traded on Nasdaq. During the years 2007 through 2009, Mr. Oppenheim served as Vice President of sales and marketing of OptimalTest Ltd. Prior to that, from 2002 till 2006, Mr. Oppenheim served as Vice President – Business Manager of the Flat Panel Displays division of Orbotech Ltd., a public company traded on Nasdaq. From 2001 till 2002, Mr. Oppenheim served as Managing Director of Asia Pacific at TTI Telecom International, a leading provider of assurance, analytics and optimization solutions to communications service providers (CSP) worldwide. Prior to that, from 1994 till 2001, Mr. Oppenheim held several key executive positions at Converse Network Systems Ltd., a public company traded on Nasdaq. Mr. Oppenheim holds a BA in Economics from the Haifa University, Israel and an MBA from Ben-Gurion University, Beer-Sheva, Israel.

Each of the director nominees named above has certified to us that he or she complies with all requirements under the Companies Law for serving as a director. Such certifications will be available for inspection at the Meeting.

For information on the compensation payable to our directors, please see our annual report for the fiscal year ended December 31, 2019, filed on Form 20-F with the Commission on March 12, 2020 (the "[Annual Report](#)").

At the Meeting, it is proposed that the following resolution be adopted:

"RESOLVED, to approve the re-election of each of Dr. Michael Brunstein, Mr. Avi Cohen, Mr. Raanan Cohen, Ms. Dafna Gruber, Mr. Ronnie (Miron) Kenneth and Ms. Zehava Simon, and election of Mr. Eitan Oppenheim, as a director of the Company to hold office until the close of the next annual general meeting."

PROPOSAL NO. 2

APPROVAL OF AMENDMENTS TO THE EMPLOYMENT TERMS OF MR.
EITAN OPPENHAIM, THE PRESIDENT AND CHIEF EXECUTIVE OFFICER OF
THE COMPANY

At the Meeting, shareholders will be asked to approve the following amendments to Mr. Eitan Oppenheim's employment terms as our President and Chief Executive Officer:

- (i) An increase of Mr. Oppenheim's monthly salary to NIS 156,000 from NIS 138,600, effective as of June 2020 salary;
- (ii) A grant of 38,500 restricted share units and 38,500 performance share units to be made on July 1, 2020, in accordance with the following terms:
 - a. The restricted share units shall vest over a period of three (3) years, whereas one third (1/3) of such restricted share units shall vest on each anniversary of the grant, unless such restricted share units have been cancelled in accordance with the terms and conditions of the share incentive plan of the Company or the employment terms of Mr. Oppenheim.
 - b. The performance share units shall vest over a period of three (3) years, whereas one third (1/3) of such performance share units shall vest on each anniversary of the grant, provided that the Company meets or exceeds the non-GAAP operating income as set forth in the Company's budget approved by the Board for the fiscal year preceding the date of vesting, unless such performance share units have been cancelled in accordance with the terms and conditions of the share incentive plan of the Company or the employment terms of Mr. Oppenheim.

In the event a portion of the performance share units fails to vest, such portion will be carried forward to the third vesting date and will vest if the Company's average annual return on equity based on net income during the previous three (3) years will be no less than ten percent (10%).

All other employment terms shall remain unchanged. For further information on the compensation terms of Mr. Oppenheim, please see our Annual Report. Mr. Oppenheim also serves as a member of our Board and is not entitled to any director's fee.

The proposed amendments to the employment terms of Mr. Oppenheim were approved by the compensation committee and the Board, while considering, among others, Mr. Oppenheim's performance and contribution to the Company, considering the good results in a challenging and volatile year. The amended terms reflect Mr. Oppenheim's experience, a comprehensive compensation survey provided to the members of the compensation committee and the Board, the terms of our compensation policy, and the ratio between the employer cost associated with the engagement of the President and Chief Executive Officer and the average and median employer cost associated with the engagement of the other employees of the Company.

Our compensation committee and Board approved the terms described above as they believe that, together with the current terms of Mr. Oppenheim's compensation, it would serve as an appropriate long-term retention and performance incentive and advance the objectives of the Company, its work plan and long-term strategy.

Our compensation committee and Board reviewed a comprehensive benchmark analysis of CEO terms of peer companies (prepared by an independent compensation advisor, Radford). The peer group was constructed with careful consideration and represents an appropriate comparison pool based on the peer companies' industry, size, revenues and maturity stage and was approved by our compensation committee. According to Radford's recent survey, Mr. Oppenheim's base salary is positioned below the market 50th percentile competitive range, while target total cash aligns with the market 50th percentile. In addition, according to Radford's survey, Mr. Oppenheim's annual LTI award and target total direct compensation are both positioned at the market 25th percentile.

The grants under this Proposal No. 2 (if approved), together with the total outstanding options, restricted share units and performance share units granted under our incentive plans, represent approximately 6% of our total issued and outstanding share capital on a fully diluted basis as of May 6, 2020 (which is lower than the 10% threshold set in the Company's compensation policy).

The employment terms of Mr. Oppenheim following the proposed amendments are consistent with our compensation policy.

At the Meeting, it is proposed that the following resolution be adopted:

"RESOLVED, to approve the amendments to the terms of employment of Mr. Eitan Oppenheim, the President and Chief Executive Officer of the Company, as detailed in the Proxy Statement, dated May 19, 2020."

PROPOSAL NO. 3

APPROVAL OF AN AMENDMENT TO THE COMPANY'S COMPENSATION
POLICY FOR DIRECTORS AND OFFICERS TO INCREASE THE MAXIMUM
PERMITTED ANNUAL PREMIUM FOR THE COMPANY'S D&O INSURANCE
AND RATIFICATION OF THE PURCHASE OF THE COMPANY'S D&O
INSURANCE POLICY

At the annual general meeting of shareholders held on June 17, 2019, our shareholders approved our current compensation policy.

Following a review of the compensation policy by our compensation committee and Board, the Company has been advised by its insurance consultants that general changes in the insurance market, that are unrelated to the Company, have led to a significant increase in premium costs in directors' and officers' liability insurance policies, and the Company may not be able to renew the current coverage under the existing premium limit, as defined in the compensation policy. In light of the foregoing, our compensation committee and Board have approved, and recommend that our shareholders approve, an amendment to the compensation policy to provide for an increase in the maximum permitted annual premium to be paid by the Company for directors' and officers' liability insurance, as described below.

It is proposed to amend Section 20.2.1 of the compensation policy as follows (additions are underlined, and deletions are struck through):

"20.2. Nova will provide directors' and officers' liability insurance (the "**Insurance Policy**") for its directors and Executive Officers as follows:

20.2.1. The annual premium to be paid by the Nova shall not exceed 9% ~~2%~~ of the aggregate coverage of the Insurance Policy;"

In May 2020, upon the expiration of our then current D&O insurance, our compensation committee and Board approved a new D&O policy (the "**New D&O Policy**") as of June 1, 2020.

Our compensation committee and Board believe that it is in the best interests of the Company and our shareholders to approve the purchase of D&O insurance coverage for up to the same limit of liability as in the previous policy equal to \$55 million (including \$5 million Side A DIC) per claim and in the aggregate for the term of the New D&O Policy. The proposed annual premium is within the premium limit as amended under this Proposal No. 3.

Our compensation committee and the Board have determined that the proposed terms for the New D&O Policy are consistent with market practices, following benchmark review conducted by our insurance consultants. Furthermore, the proposed terms are consistent with the Company's compensation policy, as amended under this Proposal No. 3.

The compensation committee and the Board have noted that the terms of the New D&O Policy deviates from the terms of our compensation policy as currently in effect. Following discussion and consideration of all relevant factors, including the rapid changes in the terms of insurance policies and significant increases in premiums payable, as well as the risks inherent in the industry, our compensation committee and Board have approved and are recommending that the shareholders approve the New D&O Policy.

At the Meeting, it is proposed that the following resolution be adopted:

"**RESOLVED**, to approve the amendment to the Company's compensation policy for directors and officers and ratify the purchase of the Company's D&O insurance policy, as detailed in the Proxy Statement, dated May 19, 2020."

PROPOSAL NO. 4

**APPROVAL OF AMENDMENTS TO THE MEMORANDUM AND ARTICLES OF
ASSOCIATION OF THE COMPANY**

We propose to adopt at the Meeting amendments to our memorandum and articles of association, as described below.

According to our memorandum and articles of association, our English name is "Nova Measuring Instruments Ltd." and our Hebrew name is "נובה מכשירי מדידה בע"מ". Over the years, the Company's offerings have expanded from metrology solutions and systems for the semiconductor manufacturing industry to also include modeling and software solutions to optimize metrology performance and going forward, we intend to continue innovating and diversifying our product portfolio to penetrate more steps of the semiconductor manufacturing process. Our Board believes that the current name does not reflect this change and our brand, and therefore our Board has resolved to change our English and Hebrew names to "Nova Ltd." and "נובה בע"מ", respectively. In the event that the proposed change of name is not approved by the Israeli Registrar of Companies, the Chairman of our Board will be authorized to select a different name containing the word "Nova" in combination with another word or expression or to leave the name unchanged (with respect to both the English and Hebrew names).

At the Meeting, shareholders will be asked to approve the necessary amendments to our memorandum and articles of association to give effect to the proposed change of name. The Board expects that the change of name will be effected within a year of such approval.

At the Meeting, it is proposed that the following resolution be adopted:

"RESOLVED, that the Company's memorandum and articles of association be amended so that the English name of the Company will change from "Nova Measuring Instruments Ltd." to "Nova Ltd.", and the Hebrew name of the Company will change from "נובה מכשירי מדידה בע"מ" to "נובה בע"מ", or such other name as the Chairman of the Board shall determine, as detailed in the Proxy Statement, dated May 19, 2020."

PROPOSAL NO. 5

APPROVAL AND RATIFICATION OF THE RE-APPOINTMENT OF KOST FORER GABBAY & KASIERER, A MEMBER OF ERNST & YOUNG, AS THE INDEPENDENT AUDITORS OF THE COMPANY FOR THE PERIOD ENDING AT THE CLOSE OF THE NEXT ANNUAL GENERAL MEETING

Under the Companies Law and our articles of association, the shareholders of our Company are authorized to appoint the Company's independent auditors. Under our articles of association, the Board (or a committee, if it is so authorized by the Board) is authorized to determine the independent auditor's remuneration. In addition, the approval by the Company's audit committee of the independent auditor's re-appointment and remuneration is required under the corporate governance rules of the Nasdaq Stock Market.

Following the recommendation by the Company's audit committee and the Board, it is proposed that Kost Forer Gabbay & Kasierer, a member of Ernest & Young, be reappointed as the independent auditors of the Company for the period ending at the close of the next annual general meeting. Such auditors served as the Company's auditors for fiscal year 2019 and have no relationship with the Company or with any affiliate of the Company, except as described in the Annual Report. Information on fees paid to the Company's independent public accountants may be found in the Annual Report.

At the Meeting, it is proposed that the following resolution be adopted:

"RESOLVED, to approve and ratify the re-appointment of Kost Forer Gabbay & Kasierer, a member of Ernest & Young, as the independent auditors of the Company for the period ending at the close of the next annual general meeting."

OTHER BUSINESS

Management knows of no other business to be acted upon at the Meeting. However, if any other business properly comes before the Meeting, the persons named in the enclosed proxy will vote upon such matters in accordance with their best judgment.

By the Order of the Board of Directors,

A handwritten signature in cursive script that reads "Dr. Brunstein". The signature is written in black ink on a light-colored background.

Dr. Michael Brunstein
Chairman of the Board of Directors of the Company

Dated: May 19, 2020

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

The Notice and Proxy Statement is available at www.proxyvote.com.

D17064-P41252

Nova Measuring Instruments Ltd.
5 David Fikes St.
Rehovot 7610201, Israel
Tel: +972-73-2295600
Fax: +972-8-9407776

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF
DIRECTORS OF NOVA MEASURING INSTRUMENTS LTD.**

The undersigned, a shareholder of Nova Measuring Instruments Ltd. (the "Company"), an Israeli corporation, hereby appoints Michael Brunstein and Dror David, and each of them acting individually, as the attorney and proxy of the undersigned, with full power of substitution, for and in the name of the undersigned, to vote and otherwise act on behalf of the undersigned at the annual general meeting of shareholders of the Company to be held at the offices of the Company, 5 David Fikes St., Rehovot 7610201, Israel, on June 25, 2020, at 5:00 p.m. Israel time (10:00 a.m. Eastern time), or at any adjournment(s) or postponement(s) thereof, with respect to all of the ordinary shares, par value NIS 0.01, of the Company (the "Shares") which the undersigned would be entitled to vote, with all powers the undersigned would possess if personally present, provided said proxies are authorized and directed to vote as indicated with respect to the matter set forth below this Proxy. Subject to applicable law and the rules of Nasdaq, in the absence of such instructions, the Shares represented by properly executed and received proxies will be voted "FOR" all of the proposed resolutions to be presented to the annual general meeting or any adjournment(s) or postponement(s) thereof for which the Board of Directors recommends a "FOR" vote, other than Proposal No. 3.

If you do not state whether you are a controlling shareholder or have personal interest, your Shares will not be voted for Proposal No. 3.

This proxy also delegates, to the extent permitted by applicable law, discretionary authority to vote with respect to any other business which may properly come before the annual general meeting or any adjournment(s) or postponement(s) thereof.

WHETHER OR NOT YOU EXPECT TO ATTEND THE MEETING, PLEASE COMPLETE, DATE AND SIGN THIS FORM OF PROXY AND MAIL THE ENTIRE PROXY PROMPTLY, ALONG WITH PROOF OF IDENTITY IN ACCORDANCE WITH THE COMPANY'S PROXY STATEMENT, IN THE ENCLOSED ENVELOPE IN ORDER TO ASSURE REPRESENTATION OF YOUR SHARES. NO POSTAGE NEED BE AFFIXED IF THE PROXY IS MAILED IN THE UNITED STATES.

Continued and to be signed on reverse side

NOVA MEASURING INSTRUMENTS LTD.
 WEIZMANN SCIENCE PARK
 P.O. BOX 266
 REHOVOT 76100 ISRAEL

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time on June 24, 2020. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

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 receiving 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 above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

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 June 24, 2020. 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:

D17063-P41252

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

NOVA MEASURING INSTRUMENTS LTD.

The Board of Directors recommends you vote FOR the following proposals:

1. Re-election of each of Dr. Michael Brunstein, Mr. Avi Cohen, Mr. Raanan Cohen, Ms. Dafna Gruber, Mr. Ronnie (Miron) Kenneth and Ms. Zehava Simon, and election of Mr. Eitan Oppenheim, as a director of the Company to hold office until the close of the next annual general meeting.

Nominees:

- 1a. Dr. Michael Brunstein
- 1b. Avi Cohen
- 1c. Raanan Cohen
- 1d. Dafna Gruber
- 1e. Ronnie (Miron) Kenneth
- 1f. Zehava Simon
- 1g. Eitan Oppenheim

VOTE FOR EACH DIRECTOR SEPARATELY

| | For | Against | Abstain |
|----------------------------|--------------------------|--------------------------|--------------------------|
| 1a. Dr. Michael Brunstein | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1b. Avi Cohen | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1c. Raanan Cohen | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1d. Dafna Gruber | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1e. Ronnie (Miron) Kenneth | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1f. Zehava Simon | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1g. Eitan Oppenheim | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. Approval of amendments to the employment terms of Mr. Eitan Oppenheim, the President and Chief Executive Officer of the Company.

- | | For | Against | Abstain |
|--|--------------------------|--------------------------|--------------------------|
| 3. Approval of an amendment to the Company's compensation policy for directors and officers to increase the maximum permitted annual premium for the Company's D&O insurance and ratification of the purchase of the Company's D&O insurance policy. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3a. Are you a controlling shareholder in the Company, or have a personal interest in the approval of this Proposal? (Please note: If you do not mark either Yes or No, your shares will not be voted for Proposal No.3). (Please note: If you mark "Yes" or leave this question blank, your shares will not be voted for Proposal No. 3).

- | | Yes | No |
|---|--------------------------|--------------------------|
| 3a. Are you a controlling shareholder in the Company, or have a personal interest in the approval of this Proposal? (Please note: If you do not mark either Yes or No, your shares will not be voted for Proposal No.3). (Please note: If you mark "Yes" or leave this question blank, your shares will not be voted for Proposal No. 3). | <input type="checkbox"/> | <input type="checkbox"/> |

- | | For | Against | Abstain |
|---|--------------------------|--------------------------|--------------------------|
| 4. Approval of amendments to the memorandum and articles of association of the Company. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- | | For | Against | Abstain |
|--|--------------------------|--------------------------|--------------------------|
| 5. Approval and ratification of the re-appointment of Kost Forer Gabbay & Kasierer, a member of Ernst & Young, as the independent auditors of the Company for the period ending at the close of the next annual general meeting. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Shareholders entitled to notice of and to vote at the meeting shall be determined as of the close of business on May 26, 2020, the record date fixed by the Board of Directors for such purpose.

The signer hereby revokes all previous proxies given by the signer to vote at the annual general meeting or any adjournments thereof.

Please sign exactly as your name(s) appear(s) on the Proxy. If held in joint tenancy, the shareholder named first in the Company's register must sign. Trustees, Administrators, etc., should include title and authority. Corporation should provide full name of corporation and title of authorized officer signing the Proxy. PLEASE BE SURE TO RETURN THE ENTIRE PROXY ALONG WITH PROOF OF IDENTITY AS DESCRIBED IN THE COMPANY'S PROXY STATEMENT.

| | |
|--|--|
| | |
|--|--|

Signature [PLEASE SIGN WITHIN BOX] Date

| | |
|--|--|
| | |
|--|--|

Signature (Joint Owners) Date