UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 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 October 2019 Commission File No.: 001-35165

BRAINSWAY LTD.

(Translation of registrant's name into English)

19 Hartum Street Bynet Building, 3rd Floor Har HaHotzvim Jerusalem, 9777518, Israel

(+972-2) 582-4030 (Address of principal executive office)

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

Form 20-F [X] 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):

The following document, which is attached as an exhibit hereto, is incorporated by reference herein:

Exhibit Title

99.1 Notice of Special General Meeting of Shareholders to be held on November 25, 2019

This Form 6-K is incorporated by reference into the Company's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on April 22, 2019 (Registration No. 333-230979).

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.

BRAINSWAY LTD.

Date: October 11, 2019 By: /s/ Hadar Levy

Hadar Levy

Chief Financial Officer

BRAINSWAY LTD.

19 Hartum Street, Bynet Building, 3rd Floor Har HaHotzvim, Jerusalem 9777518 Israel

NOTICE OF SPECIAL GENERAL MEETING OF SHAREHOLDERS To Be Held on November 25, 2019

The Special General Meeting of Shareholders of Brainsway Ltd. (the "Company"), will be held at the offices of the Company, 19 Hartum Street, Bynet Building, 3rd Fl, Har HaHotzvim, Jerusalem, Israel on November 25, 2019 at 3:00 p.m. Israel time, or at any adjournments thereof (the "General Meeting"), for the following purposes:

- 1. To approve the engagement by the Company of Dr. David Zacut, the Company's Chairman of the Board of Directors, as the Company's interim Chief Executive Officer for a term of up to one year, and the increase of the capacity of his consultancy to the Company accordingly;
- 2. To approve an amendment to the Company's Articles of Association relating to the office of directors appointed by the Board of Directors of the Company;
- 3. To approve an amendment to the Company's Articles of Association to change the shareholders' majority required for amending articles relating to the Board of Directors of the Company and for removing a director from his/her position; and
- 4. To approve the Brainsway Ltd. Amended and Restated 2019 Share Incentive Plan.

The Company is currently unaware of any other matters that may be raised at the General Meeting. Should any other matters be properly raised at the General Meeting, the persons designated as proxies shall vote according to their own judgment on those matters.

Only holders of record of ordinary shares, par value NIS 0.04 per share (the "Ordinary Shares"), and holders of record of American Depository Shares ("ADSs"), evidenced by American Depository Receipts issued by The Bank of New York Mellon at the close of business on October 17, 2019 shall be entitled to receive notice of and to vote at the General Meeting.

The Board of Directors recommends that you vote FOR the proposals, as specified on the enclosed form of proxy.

Whether or not you plan to attend the General Meeting, it is important that your Ordinary Shares or ADSs (as applicable) be represented. Accordingly, you are kindly requested to complete, date, sign and mail the enclosed proxy in the envelope provided at your earliest convenience so that it will be received no later than four hours prior to the General Meeting. Execution of a proxy will not in any way affect a shareholder's right to attend the General Meeting and vote in person, and any person giving a proxy has the right to revoke it at any time before it is exercised.

Shareholders registered in the Company's shareholders register in Israel and shareholders who hold Ordinary Shares through members of the Tel-Aviv Stock Exchange may also vote through the attached proxy by completing, dating, signing and mailing the proxy to the Company's offices so that it is received by the Company no later than Friday, November 22, 2019, at 11:00 a.m. Israel time. Shareholders registered in the Company's shareholders register in Israel and shareholders who hold Ordinary Shares through members of the Tel-Aviv Stock Exchange who vote their Ordinary Shares by proxy must also provide the Company with a copy of their identity card, passport or certification of incorporation, as the case may be.

Shareholders who hold Ordinary Shares through members of the Tel-Aviv Stock Exchange and intend to vote their Ordinary Shares either in person or by proxy must deliver to the Company, no later than Friday, November 22, 2019, at 11:00 a.m. Israel time, an ownership certificate confirming their ownership of the Company's Ordinary Shares on the Record Date (as defined below), which certificate must be issued or approved by a recognized financial institution, as required by the Israeli Companies Regulations (Proof of Ownership of Shares for Voting at General Meeting) of 2000, as amended. Alternatively, shareholders who hold Ordinary Shares through members of the Tel-Aviv Stock Exchange may vote electronically via the electronic voting system of the Israel Securities Authority up to six hours before the time fixed for the General Meeting (*i.e.*, 9:00 a.m. Israel time on November 25, 2019). You should receive instructions about electronic voting from the Tel-Aviv Stock

Exchange member through which you hold your Ordinary Shares.

ADS holders should return their proxies by the date set forth on their form of proxy.

Shareholders wishing to express their position on an agenda item for this General Meeting may do so by submitting a written statement ("Position Statement") to the Company's offices, c/o Company Secretary, at 19 Hartum Street, Bynet Building, 3rd Fl, Har HaHotzvim, Jerusalem, Israel, by no later than November 14, 2019. Any Position Statement received, that is in accordance with the guidelines set by the Israel Companies Law 1999, 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://maya.tase.co.il.

If within half an hour from the time appointed for the General Meeting a quorum is not present, the General Meeting shall be adjourned to the same day as the day of the scheduled General Meeting, in the following week, at the same time and place, or at another day, time and place prescribed by the Board of Directors in a notification to the shareholders.

This Notice and the documents mentioned therein, as well as the proposed resolutions on the agenda, can be viewed at the Company's registered office on 19 Hartum Street, Bynet Building, 3rd Fl, Har HaHotzvim, Jerusalem, Israel, Tel: (+972-2) 582-4030, Sunday through Thursday between 10:00-15:00, and also will be made available to the public on the Company's website http://www.brainsway.com, the Commission's website at http://www.sec.gov and in addition at http://www.magna.isa.gov.il or http://www.aga.tase.co.il.

By Order of the Board of Directors, Dr. David Zacut Chairman of the Board of Directors

Tel-Aviv, Israel October 11, 2019