Filed Pursuant to Rule 424(b)(3)
Registration No. 333-239971

Prospectus Supplement No. 5
(to Prospectus dated July 23, 2020)

BIONTECH SE

Rights Offering for up to 7,505,596 Ordinary Shares Including Ordinary Shares Represented by American Depositary Shares

This Prospectus Supplement No. 5 supplements information contained in our prospectus, dated July 23, 2020, relating to the offering to holders of our ordinary shares and American Depositary Shares, or ADSs, representing our ordinary shares, of rights to subscribe for up to an aggregate of 7,505,596 new ordinary shares and new ADSs representing our ordinary shares.

This prospectus supplement is being filed to update, amend and supplement the information previously included in the prospectus with the information set forth in our Report on Form 6-K filed with the Securities and Exchange Commission on August 12, 2020, which is set forth below. This prospectus supplement should be read in conjunction with the prospectus dated July 23, 2020. To the extent there is a discrepancy between the information contained in this prospectus supplement and the information in the prospectus, the information contained herein supersedes and replaces such conflicting information.

You should carefully consider whether or not to exercise your subscription rights before the expiration of the rights offering at one minute after 11:59 p.m. (Mainz, Germany time) on August 14, 2020 (for ordinary share rights) or 12:01 a.m. (New York City time) on August 14, 2020 (for ADS rights). All exercises of rights to subscribe for new ADSs are irrevocable. Neither we, our supervisory board, the dealer-managers nor the subscription agents are making a recommendation regarding your exercise of the subscription rights.

Investing in our ordinary shares and ADSs representing our ordinary shares involves a high degree of risk. See “Risk Factors” beginning on page 22 of the prospectus, together with all of the other information contained in the prospectus and in our filings with the Securities and Exchange Commission that we have incorporated by reference in the prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this Prospectus Supplement No. 5 is August 12, 2020.

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
UNDER THE SECURITIES EXCHANGE ACT OF 1934

FOR THE MONTH OF AUGUST 2020

COMMISSION FILE NUMBER 001-39081

BioNTech SE

(Translation of registrant's name into English)

An der Goldgrube 12
D-55131 Mainz
Germany
+49 6131-9084-0
(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): ☐

DOCUMENTS INCLUDED AS PART OF THIS FORM 6-K

On August 12, 2020, BioNTech SE (the "Company") and Pfizer Inc. issued a press release announcing that preliminary, peer-reviewed data from their BNT162 mRNA-based vaccine development program, Project Lightspeed, against SARS-CoV-2, were published online in the journal Nature. The press release is attached hereto as Exhibit 99.1.

SIGNATURE

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

BioNTech SE

By: /s/ Dr. Sierk Poetting
Name: Dr. Sierk Poetting
Title: Chief Financial Officer

Date: August 12, 2020

EXHIBIT INDEX

Exhibit	Description of Exhibit
99.1	Press Release dated August 12, 2020 - Pfizer and BioNTech Announce Publication of Peer-Reviewed Data from Ongoing Phase 1/2 study of mRNA-based Vaccine Candidate, BNT162b1, Against SARS-CoV-2 in Nature.

Pfizer and BioNTech Announce Publication of Peer-Reviewed Data from Ongoing Phase 1/2 study of mRNA-based Vaccine Candidate, BNT162b1, Against SARS-CoV-2 in *Nature*

NEW YORK and MAINZ, GERMANY, August 12, 2020 — Pfizer Inc. (NYSE: PFE) and BioNTech SE (Nasdaq: BNTX) today announced that preliminary, peer-reviewed data from their BNT162 mRNA-based vaccine development program, Project Lightspeed, against SARS-CoV-2, were published online in the journal *Nature*. These preliminary clinical data on BNT162b1, a nucleoside-modified messenger RNA (modRNA) candidate that encodes an optimized SARS-CoV-2 receptor binding domain (RBD) antigen, showed that BNT162b1 was administered in a dose that was well tolerated and generated dose dependent immunogenicity, as measured by RBD-binding IgG concentrations and SARS-CoV-2 neutralizing titers. These data were made available to the public on July 1, 2020 via an online preprint server, Medrxiv. For additional details, please read the previously issued press release.

The posted preprint version of the manuscript reported that, by 7 days after the second dose, 30 µg of BNT162b1 elicited a SARS-CoV-2 neutralizing geometric mean titer (GMT) 2.8-times the GMT of a SARS-CoV-2 convalescent human serum panel. Based on new data, the final, peer reviewed paper reports that neutralizing titers continued to rise, and, by 14 days after the second dose of 30 µg, the participants' GMT was 4.6-times the convalescent serum panel GMT.

"The publication of peer-reviewed data from our mRNA-based vaccine development program against SARS-CoV-2 in a world-renowned publication like *Nature* provides further validation of our rapid progress toward developing a safe and effective potential vaccine to help address this current pandemic," said **Kathrin U. Jansen, Ph.D., Senior Vice President and Head of Vaccine Research & Development, Pfizer**. "We are encouraged by the overall advancement of the program and look forward to generating additional data from our ongoing studies."

“Since our inception, we have been deeply grounded in science, which makes sharing our data in a peer-reviewed publication like Nature an even more important milestone. The scientific rigor of our approach is fundamental during the current pandemic. Supporting the growing body of knowledge is instrumental for finding answers to benefit global health,” **said Ugur Sahin, M.D., CEO and Co-founder of BioNTech**. “We aim to continuously follow that scientific rigor in reporting additional data from our global trials, which are ongoing at more than 100 clinical sites worldwide. Our aim remains to bring a safe and efficacious vaccine to the global community.”

Pfizer and BioNTech recently selected BNT162b2 as the vaccine candidate to progress to a Phase 2/3 study, which is now enrolling. BNT162b2 was selected based on the totality of available data from preclinical and clinical studies, including select immune response and tolerability parameters compared to the BNT162b1 candidate. The companies are continuing to collect data from the Phase 1/2 trials and expect to submit data on BNT162b2 for peer review and potential publication in the near future. In keeping with their commitment to transparency, the companies intend to also post the manuscript on a preprint server at that time.

The Phase 2/3 study is an event driven trial that is planned to enroll up to 30,000 participants between 18 and 85 years of age. The companies plan to enroll a diverse population, including participants in areas where there is significant expected SARS-CoV-2 transmission. For further information about this trial, visit ClinicalTrials.gov using the number NCT04368728.

About Pfizer: Breakthroughs That Change Patients’ Lives

At Pfizer, we apply science and our global resources to bring therapies to people that extend and significantly improve their lives. We strive to set the standard for quality, safety and value in the discovery, development and manufacture of health care products, including innovative medicines and vaccines. Every day, Pfizer colleagues work across developed and emerging markets to advance wellness, prevention, treatments and cures that challenge the most feared diseases of our time. Consistent with our responsibility as one of the world’s premier innovative biopharmaceutical companies, we collaborate with health care providers, governments and local communities to support and expand access to reliable, affordable health care around the world. For more than 150 years, we have worked to make a difference for all who rely on us. We routinely post information that may be important to investors on our website at www.Pfizer.com. In addition, to learn more, please visit us on www.Pfizer.com and follow us on Twitter at @Pfizer and @Pfizer News, LinkedIn, YouTube and like us on Facebook at Facebook.com/Pfizer.

Pfizer Disclosure Notice

The information contained in this release is as of August 12, 2020. Pfizer assumes no obligation to update information or forward-looking statements contained in this release as the result of new information or future events or developments.

This release contains forward-looking information about Pfizer's efforts to combat COVID-19, the BNT162 mRNA vaccine program, and a collaboration between BioNTech and Pfizer to develop a potential COVID-19 vaccine, including their potential benefits, anticipated publication of data, manufacturing and distribution and the expected timing of clinical trials, that involves substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Risks and uncertainties include, among other things, the uncertainties inherent in research and development, including the ability to meet anticipated clinical endpoints, commencement and/or completion dates for clinical trials, regulatory submission dates, regulatory approval dates and/or launch dates, as well as the possibility of unfavorable new preclinical or clinical trial data and further analyses of existing preclinical or clinical trial data; risks associated with preliminary data; the risk that clinical trial data are subject to differing interpretations and assessments, including during the peer review/publication process, in the scientific community generally, and by regulatory authorities; whether the scientific journal publications referenced above will occur and, if so, when and with what modifications; whether regulatory authorities will be satisfied with the design of and results from these and future preclinical and clinical studies; whether and when any biologics license applications may be filed in any jurisdictions for any potential vaccine candidates under the collaboration; whether and when any such applications may be approved by regulatory authorities, which will depend on myriad factors, including making a determination as to whether the product's benefits outweigh its known risks and determination of the product's efficacy and, if approved, whether any such vaccine candidates will be commercially successful; decisions by regulatory authorities impacting labeling, manufacturing processes, safety and/or other matters that could affect the availability or commercial potential of any such vaccine candidates, including development of products or therapies by other companies; manufacturing capabilities or capacity, including whether the estimated numbers of doses can be manufactured within the projected time periods indicated; uncertainties regarding the ability to obtain recommendations from vaccine technical committees and other public health authorities regarding any such vaccine candidates and uncertainties regarding the commercial impact of any such recommendations; and competitive developments.

A further description of risks and uncertainties can be found in Pfizer's Annual Report on Form 10-K for the fiscal year ended December 31, 2019 and in its subsequent reports on Form 10-Q, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Information and Factors That May Affect Future Results," as well as in its subsequent reports on Form 8-K, all of which are filed with the U.S. Securities and Exchange Commission and available at www.sec.gov and www.pfizer.com.

About BioNTech

Biopharmaceutical New Technologies is a next generation immunotherapy company pioneering novel therapies for cancer and other serious diseases. The Company exploits a wide array of computational discovery and therapeutic drug platforms for the rapid development of novel biopharmaceuticals. Its broad portfolio of oncology product candidates includes individualized and off-the-shelf mRNA-based therapies, innovative chimeric antigen receptor T cells, bi-specific checkpoint immuno-modulators, targeted cancer antibodies and small molecules. Based on its deep expertise in mRNA vaccine development and in-house manufacturing capabilities, BioNTech and its collaborators are developing multiple mRNA vaccine candidates for a range of infectious diseases alongside its diverse oncology pipeline. BioNTech has established a broad set of relationships with multiple global pharmaceutical collaborators, including Genmab, Sanofi, Bayer Animal Health, Genentech, a member of the Roche Group, Genevant, Fosun Pharma, and Pfizer. For more information, please visit www.BioNTech.de.

BioNTech Forward-looking statements

This press release contains “forward-looking statements” of BioNTech within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements may include, but may not be limited to, statements concerning: BioNTech’s efforts to combat COVID-19; the potential number of sites and participants in our Phase 2/3 trial; the collaboration between BioNTech and Pfizer to develop a potential COVID-19 vaccine; and our expectations regarding the potential characteristics of BNT162b2 in our Phase 2/3 trial and/or in commercial use based on data observations to date, including expected advantages over BNT162b1. Any forward-looking statements in this press release are based on BioNTech current expectations and beliefs of future events, and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to: competition to create a vaccine for COVID-19; the ability to produce comparable clinical results in larger and more diverse clinical trials; the ability to effectively scale our productions capabilities; and other potential difficulties. For a discussion of these and other risks and uncertainties, see BioNTech’s Annual Report on Form 20-F filed with the SEC on March 31, 2020, which is available on the SEC’s website at www.sec.gov. All information in this press release is as of the date of the release, and BioNTech undertakes no duty to update this information unless required by law.

Pfizer Contacts:
Media Relations
Jerica Pitts
+1 (212) 733-5060
Jerica.Pitts@pfizer.com

Investor Relations
Chuck Triano
+1 (212) 733-3901
Charles.E.Triano@Pfizer.com

BioNTech Contacts:
Media Relations
Jasmina Alatovic
+49 (0)6131 9084 1513 or +49 (0)151 1978 1385
Media@biontech.de

Investor Relations
Sylke Maas, Ph.D.
+49 (0)6131 9084 1074
Investors@biontech.de