Combined Management Report for the 2022 Financial Year

1 General Information of the BioNTech Group

Pursuant to Section 315 para. 5 of the German Commercial Code (HGB) in conjunction with Section 298 para. 2 HGB, this combined management report comprises both the group management report of BioNTech SE and its group companies (together "BioNTech" or the "Group") and the management report of BioNTech SE (also "the Company"), hereinafter also referred to as "BioNTech", the "Group", "we" or "us". The combined management report has been prepared in accordance with the Regulation on the Statute for a European Company (SE) in conjunction with the German Stock Corporation Act (AktG). The comments on the Group have been prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union; the comments on BioNTech SE have been prepared in accordance with the German Commercial Code (HGB). Unless otherwise stated, the statements in the combined management report relate to both the Group and BioNTech SE. In addition to the reporting on the Group, the development of BioNTech SE is explained in chapter 3.

We prepare and publish our combined management report in Euros and round figures to the nearest thousand or million Euros. Accordingly, minor discrepancies may arise in some tables when totals are presented or percentages are calculated, and the figures given in the notes may not add up precisely to the totals provided. The rounding applied may differ from that published in previous years in other units.

1.1 Business model

BioNTech is a next-generation immunotherapy company pioneering the development of therapies for cancer and other serious diseases. We combine a variety of advanced therapeutic platforms and bioinformatics tools to rapidly advance the development of novel biopharmaceuticals. The diversified portfolio of oncology product candidates includes individualized therapies as well as mRNA-based "off-the-shelf" drugs, innovative chimeric antigen receptor (CAR) T cells, bispecific checkpoint immunomodulators, targeted cancer antibodies and small molecules. The breadth of immunotherapy technologies and expertise has led to the development of potential therapies for a range of rare diseases and infectious diseases, and the development of the COVID-19 vaccine, a first product to combat the COVID-19 pandemic.

A deep understanding of the human immune system is at the core of our innovations and has resulted in the discovery of four complementary drug classes:

- mRNA therapeutics
- Programmable cell therapies
- Next generation antibodies
- Small molecule immunomodulators

In addition to research and development, our expertise also encompasses the field of bioinformatics, which is crucial for the production of individualized therapies. Here, we have developed a validated patient-centric bioinformatics process that enables the application of complex algorithms to patient data in the context of drug manufacturing.

Last year, we further advanced our strategy to build world-leading capabilities in Artificial Intelligence (AI)-driven drug discovery and the development of next-generation immunotherapies and vaccines through sustained investments and the expansion of strategic partnerships. Our goal is to address diseases with high unmet medical need and enable individualized cancer treatment.

Using a novel approach, we have developed turnkey, mobile, modular mRNA production facilities based on a container solution, our so-called BioNTainers. These are designed to enable decentralized and scalable vaccine production that can be tailored to local needs. With this solution approach, we aim to improve vaccine supply, for example, together with the African Union, in Africa, for Africa.

Our business model is to develop, manufacture and market proprietary immunotherapies, either independently or in collaboration with partners, following regulatory approval. Under our COVID-19 vaccine program, we have entered into two strategic collaborations with major pharmaceutical companies, Pfizer Inc. of New York, United States ("Pfizer") and Fosun Pharmaceutical Industrial Development Co. Ltd. of Shanghai, China ("Fosun Pharma"), which we continued to advance in fiscal 2022. In selected cases, collaboration agreements are entered into with third parties for joint product development and joint product commercialization opportunities. This is an approach that may be applied to additional product candidates in the future. BioNTech maintains a culture of scientific excellence, publishes scientific

achievements, findings and results in peer-reviewed publications and owns a broad patent portfolio. BioNTech's intellectual property strategy also includes licenses from third parties in addition to its own patent portfolio.

Our consolidated revenues during the 2022 financial year includes commercial COVID-19 vaccine revenues in particular, in addition to research and development revenues from collaborations.

1.2 Legal and organizational structure

Legal structure

BioNTech SE was founded in 2008 as a spin-off from Johannes Gutenberg University Mainz. The underlying broad technology and patent portfolio was built up over a period of more than 20 years.

BioNTech SE is the parent company of the BioNTech Group and is responsible for the management and development of the Group. BioNTech SE has its registered office in Mainz, Germany (An der Goldgrube 12, 55131 Mainz). In addition, as of the end of the 2022 financial year, the BioNTech Group included 33 group companies at six different locations in Germany, two different locations in the United States and one location each in Australia, China, Austria, Rwanda, Singapore, Turkey and the United Kingdom.

The following changes in the Group structure occurred during the 2022 financial year:

- In February 2022, BioNTech Innovation GmbH, Mainz, Germany, a wholly owned subsidiary of BioNTech SE, was founded.
- In July 2022, BioNTech BioNTainer Holding GmbH, Mainz, Germany, a wholly owned subsidiary of BioNTech SE, was founded.
- In August 2022, BioNTech Rwanda Ltd, Kigali, Rwanda, a wholly owned subsidiary of BioNTech BioNTainer Holding GmbH, which in turn is a wholly owned subsidiary of BioNTech SE, was established.
- In September 2022, BioNTech Idar-Oberstein Services GmbH, Idar-Oberstein, Germany, a wholly owned subsidiary of BioNTech SE, was founded.
- NT Security and Services GmbH, Mainz, Germany, a wholly owned subsidiary of BioNTech SE, was founded in September 2022.
- In October 2022, BioNTech Australia Pty Ltd, Melbourne, Australia, a wholly owned subsidiary of BioNTech BioNTainer Holding GmbH, which in turn is a wholly owned subsidiary of BioNTech SE, was founded.
- In November 2022, BioNTech Individualized mRNA Manufacturing GmbH i.G., Mainz, Germany, a wholly owned subsidiary of BioNTech SE, was founded.

All of the above companies are included in the consolidated financial statements as of December 31, 2022.

The shares of BioNTech SE are publicly traded as American Depositary Shares (ADS) on the Nasdaq Global Select Market.

Organizational structure

As the parent company of the BioNTech Group, BioNTech SE has a dual management system: The Management Board, as the managing body, had six members as of December 31 and is appointed and monitored by the Supervisory Board. The Supervisory Board is elected by the Annual General Meeting. In fiscal year 2022, the Supervisory Board was expanded by the appointment of Prof. Anja Morawietz, Ph.D. and Prof. Rudolf Staudigl, Ph.D. on June 1, 2022. In addition, Helmut Jeggle was reappointed as a member of the Supervisory Board at the Annual General Meeting on June 1, 2022 and was again elected Chairman by the Supervisory Board. As a result, the Supervisory Board consisted of six members as of the reporting date December 31, 2022. As of the reporting date December 31, 2022, there were 4,692 employees, of which 2,304 were employed by BioNTech SE (December 31, 2021: 3,138, of which 1,378 were employed by BioNTech SE) and an annual average of 4,104 employees, of which 1,936 were employed by BioNTech SE (previous year: 2,694, of which 1,181 were employed by BioNTech SE).

1.3 Commercialization

Our COVID-19 vaccine, based on our proprietary mRNA technology, has been fully licensed, granted conditional marketing approval, or approved or licensed for emergency or temporary use in more than 100 countries and regions worldwide, resulting in a total of more than 4 billion doses of vaccine shipped globally as of December 2022.

The COVID-19 vaccine development program was launched in late January 2020 in response to the COVID-19 pandemic. Under this program, two strategic collaborations with major pharmaceutical companies, Pfizer and Fosun Pharma, were completed and led to the first market approvals in December 2020. Clinical development continued in fiscal 2022 to obtain approvals for a broad population across many age groups.

We hold marketing authorizations in the United States, the European Union, the United Kingdom, Canada and other countries, as well as emergency or equivalent marketing authorizations in the United States (together with Pfizer) and other countries. Pfizer holds marketing and distribution rights worldwide, except in Germany, China and Turkey. We hold the marketing and distribution rights in Germany and Turkey. Fosun Pharma holds the marketing and distribution rights in China, the Hong Kong Special Administrative Region, or SAR, Macau SAR and the Taiwan region. The mRNA-based COVID-19 vaccine is marketed under the brand name COMIRNATY® in the EU, where we have received full marketing authorization.

We and Pfizer continued to build global vaccine manufacturing capabilities, structures and networks during the 2022 financial year to produce and distribute large volumes of the vaccine in high quality in a timely manner. The expertise of both companies was also synergistically leveraged in 2022. With the continued expansion of our own manufacturing capabilities combined with our mRNA manufacturing expertise acquired over nearly a decade, we played a significant role in the joint manufacturing and distribution of the COVID-19 vaccine. Our manufacturing facility in Marburg, Germany, is now one of the largest mRNA vaccine production facilities in the world, with a capacity of three billion vaccine doses. During 2022 financial year, we continued to execute on plans with Pfizer for global market leadership of COVID-19 vaccine, launching new formulations, pediatric vaccines and two Omicron-adapted bivalent vaccines against BA.1 and BA.4/5 variants.

1.4 Research and development

The BioNTech approach

We are developing next-generation immunotherapies. Our diversified portfolio of oncology product candidates includes individualized therapies as well as off-the-shelf drugs based on four complementary drug classes:

- mRNA therapeutics
- Programmable cell therapies
- Next generation antibodies
- Small molecule immunomodulators

Based on our extensive expertise in mRNA vaccine development and in-house manufacturing capabilities, we are developing several mRNA vaccine candidates for a range of infectious diseases and other severe diseases, including with collaboration partners, in addition to our diverse oncology pipeline.

mRNA therapeutics

We use messenger ribonucleic acid (mRNA) to transport genetic information into cells, where it is used to express proteins for therapeutic effect. Currently, we are developing a portfolio of immunotherapy approaches consisting of four different mRNA formats and three different formulations to derive five different platforms for the treatment of cancer. All of these platforms are currently in clinical trials: (i) standard shared antigen immunotherapy (FixVac), (ii) individualized neoantigen-specific immunotherapy (iNeST) in collaboration with Genentech Inc. ("Genentech"), (iii) intratumoral immunotherapy, and (iv) mRNA encoded for specific cytokines (RiboCytokines). In addition, we are developing another platform using mRNA to express specific antibodies, RiboMabs, directly in the patient. Furthermore, the Company's proprietary mRNA technology is also used to treat COVID-19, influenza and other infectious diseases as well as rare diseases. The successful commercialization of our COVID-19 vaccine represents the world's first mRNA-based vaccine approved for the market.

Programmable cell therapies

We are developing a range of cell therapies to modify the patient's T cells to target cancer-specific antigens - including chimeric antigen receptor or CAR-T cells, neoantigen-based T cell therapies and T cell receptor or TCR therapies. In addition, the mRNA-based FixVac platform will be applied in combination with the first CAR-T product candidate to improve the persistence of CAR-T cells in vivo. The first CARVac product candidate and the first product candidate for neoantigen-based T cell therapies are both currently in clinical trials.

Next generation antibodies

In collaboration with Genmab A/S, Copenhagen, Denmark ("Genmab"), we are developing next-generation bispecific antibodies that target immune checkpoints and modulate the patient's immune response to cancer. The first four product candidates from this collaboration are in clinical trials. In addition, BioNTech is exploring further targeted approaches for cancer antibodies using its own patents and research focus.

Small molecule immunomodulators

We are researching small molecule drugs to induce specific immunomodulation profiles. The goal is to enhance the activity of other drug classes by inducing specific and discrete patterns of immunomodulation. We currently have a small molecule Toll-like receptor 7 or TLR7 immunomodulator in clinical trials for the treatment of solid tumors.

Pipeline of preclinical programs and clinical product candidates

Our diversified portfolio consists of product candidates from four classes of compounds focused on the treatment of cancer and infectious diseases. Currently, 25 product candidates are in more than 30 clinical trials and more than 30 research programs. Our oncology pipeline currently comprises more than 20 product candidates. In 2022, we have initiated four first-in-human clinical trials. Clinical data for key programs have been published in recent years and we have gained further important insights from clinical trial data in 2022. For example, results from the Phase 1 trial of BNT122, an iNeST product candidate, in the treatment of patients with pancreatic cancer showed a significant correlation between the immune response elicited by the cancer vaccine and delayed tumor recurrence. In addition, the results indicate a favorable safety profile. Follow-up data from the ongoing Phase 1/2 clinical trial of our product candidate BNT211, a novel CAR-T cell therapy approach, show encouraging signs of anti-tumor activity in the treatment of 22 patients with testicular cancer. And data from the Phase 1/2 clinical trial with our product candidate BNT312 (GEN1042), which we are developing with our collaboration partner Genmab, also show promising immune responses.

Collaborations

In addition to the strategic collaborations with Pfizer and Fosun Pharma entered into as part of the COVID-19 vaccine development program during the 2020 financial year and described above, as well as the ongoing academic collaboration with the University Hospital Mainz and Translational Oncology at the University Medical Center of the Johannes Gutenberg University Mainz gemeinnützige GmbH ("TRON"), we have further developed the following collaborations with pharmaceutical and technology companies.

- Genentech: Development of individualized neo-epitope-specific mRNA immunotherapies for the treatment of various cancers within our iNeST platform.
- Pfizer: development of an mRNA-based influenza vaccine and a combined mRNA-based influenza and COVID-19 vaccine, and an mRNA-based herpes zoster virus vaccine.
- Genmab: development of novel mono- and bispecific checkpoint immunomodulators.

Employees and research and development expenses

As of the reporting date December 31, 2022, 1,786 employees, thereof 1,259 at BioNTech SE (December 31, 2021: 1,179, thereof 870 at BioNTech SE), were working in research and development. The increase predominantly from new hires to advance basic scientific research and especially clinical research. Research and development costs in the Group amounted to €1,537.0 million during the 2022 financial year (previous year: €949.2 million). The increase was mainly due to increased costs in the context of adapting our COVID-19 vaccine to new variants as well as the progress of clinical trials for further product candidates from our pipeline. Other reasons for the increase were higher wages, salaries and social security contributions due to increased headcount as well as higher expenses from our share-based payments. Research and development expenses include the portion of costs attributable to us under the terms of the Pfizer collaboration agreement. Development costs are shared between us and Pfizer. The amount of shared development costs originally incurred by Pfizer and subsequently recharged to us was recorded in research and

development expenses as purchased services, and the reimbursement by Pfizer of the research and development costs originally incurred by us was recorded as a reduction of research and development expenses.

2 Economic report

2.1 Macroeconomic and industry-specific conditions

Despite difficult conditions, including sharp energy price increases and the consequences of the war in Ukraine, the German economy proved robust in 2022, growing by 1.8%[1] year-on-year in price-adjusted terms. In 2021 economic growth in Germany was still 2.6%.[1] For 2023, the German government expects only slight growth of 0.2%[2]. The global economy grew by around 3.2%[3] in 2022. The International Monetary Fund (IMF) does not expect a global recession in 2023. Although another difficult year with a persistently high inflation rate lies ahead, the labor markets are strong and private consumption is therefore also at a stable level. At 2.7%[3], global economic growth in 2023 is forecast to be slightly weaker than in 2022.

The German pharmaceutical industry expects more difficult conditions in 2023, as demand for COVID-19 vaccines and medicines is falling, higher costs are imminent due to regulations from politicians, and high prices for energy and precursors are to be expected. Compared to the previous year, sales are forecast to decrease by approximately 5%[4] and production by 1.8%[4] . In 2022, sales are still up 6.5%[4] and production up 3.6%[4] due in part to high demand for COVID-19 vaccines.

The ongoing, albeit subsiding, COVID-19 pandemic shaped the overall economic situation in Germany in 2022, as it did in 2021 and 2020.[5] In addition, the World Health Organization (WHO) continues to classify the COVID-19 pandemic as a global health emergency and continues to attach critical importance to COVID-19 vaccination, although the pandemic is approaching a turning point.[6]

With the development and advancement of the COVID-19 vaccine against diverse COVID-19 variants, as well as an early warning system designed to detect SARS-CoV2 risk variants more quickly, we are working with other companies, research institutes and governments to continue to contribute to the worldwide effort to overcome the global COVID-19 pandemic and protect against COVID-19. Our goal remains to make the vaccine available to a broad population worldwide.

Therapeutics in immunotherapy

The global market for mRNA therapeutics was estimated at $43 billion[7] in 2021 and is forecast by Precedence Research to grow at a compound annual growth rate of 13%[7] to approximately $128 billion[7] by 2030. To date, mRNA vaccines have only been approved for COVID-19 vaccines, but many others are in development, such as for cancer.[8]

[1] Source: https://www.destatis.de/DE/Themen/Wirtschaft/Volkswirtschaftliche-Gesamtrechnungen-Inlandsprodukt/Tabellen/bip-bubbles.html

[2] Source: https://www.bundesregierung.de/breg-de/aktuelles/jahreswirtschaftsbericht-2023-2160264#:~:text=In%20their%20annual%20economic%20report%2020expects,to%201%2C8%20grow%20percent.

[3] Source: https://www.tagesschau.de/wirtschaft/weltwirtschaft/iwf-prognose-weltwirtschaft-usa-101.html

[4] Source: https://www.aerzteblatt.de/nachrichten/140096/Pharmabranche-erwartet-Umsatzrueckgang

[5] Source: https://www.destatis.de/DE/Presse/Pressemitteilungen/2023/01/PD23_020_811.html

[6] Source: https://www.tagesschau.de/ausland/who-covid-19-notstand-101.html

[7] Source: https://www.precedenceresearch.com/mrna-therapeutics-market

[8] Source: https://www.vfa.de/de/arzneimittel-forschung/coronavirus/rna-basierte-impfstoffe-in-entwicklung-und-versorgung

Statista Health Market Outlook estimates global cancer drug sales in 2022 at €159 billion[9] with an 18%[9] share of the total pharmaceutical market. In 2025, sales are forecasted at €228 billion[9] with a market share of 22% . [9]

Marketing authorization, pricing and reimbursement are highly regulated in healthcare. On the one hand, it is the strategy of governments to provide patients with highly effective and safe medicines in a timely manner. On the other hand, cost pressure on global healthcare systems has been increasing for years. Therefore, drug manufacturers not only need to demonstrate the efficacy and safety of their products to gain approval, but also need to demonstrate the cost-effectiveness of their new drug against the respective standard of care to gain reimbursability. The rapid development of the COVID-19 vaccine, based on BioNTech's proprietary mRNA technology, has demonstrated the potential of immunotherapies. The rapid, efficient and safe development was driven by BioNTech's decades of expertise in the research and development of mRNA-based vaccines. BioNTech's mRNA vaccine technology allows for faster development as well as shorter production cycles than would be possible with more traditional methods of vaccine production. This is critical in bringing a COVID-19 vaccine to market and meeting urgent medical needs.

[9] Source: https://de.statista.com/infografik/26720/geschaetzter-umsatz-mit-krebsmedikamenten-und-marktanteil-an-allen-therapiegebieten-weltweit/

2.2 Presentation of business performance compared with the forecast

The following table shows the comparison between the BioNTech Group's forecast and earnings for 2022 financial year:

	Forecast for the 2022 financial year *(Published as part of Q4 2021 earnings presentation).*	**Updated guidance for the 2022 financial year** *(Published as part of Q3 2022 earnings presentation).*	**Results for the 2022 financial year**
Commercial COVID-19 vaccine revenues	€13 billion to €17 billion	€16 billion to €17 billion	€17,145.2 million
Research and development expenses	€1.4 billion to €1.5 billion	€1.4 billion to €1.5 billion	€1,537.0 million
Selling, general and administrative expenses	€450 million to €550 million	€450 million to €550 million	€544.2 million
Capital expenditures	€450 million to €550 million.	€450 million to €550 million.	€363.3 million
Effective annual tax rate of the BioNTech Group	28%	27%	27,2%

Due to positive currency effects and strong sales from our collaboration partners resulting in a higher share of gross profit, a total of €17.1 billion in commercial COVID-19 vaccine revenues was achieved during 2022 financial year. This exceeded the upper end of the forecast range by €0.1 billion.

Expected research and development expenses of €1.5 billion during 2022 financial year were at the upper end of the forecast range which was mainly due to expenses from the production of COVID-19 bivalent vaccines adapted to Omicron BA.1 and BA.4/BA.5 prior to the market authorization.

For the 2022 financial year, we expected selling, general and administrative expenses of between €450 million and €550 million. At €544.2 million, expenses for internal administrative and coordinating functional areas related to the expansion of research and development, such as finance, human resources or business development, were in line with the forecast costs for this purpose. Expenses were mainly driven by supporting our rapid and sustainable growth, including the acceleration of our internal operational activities.

Capital expenditure on property, plant and equipment and intangible assets amounted to €363.3 million in the past fiscal year. Expenditure on the expansion and improvement of our research and development and manufacturing facilities and investments in IT infrastructure was thus around €90 million below the lower end of the forecast range. This was mainly due to delays or standstills in construction projects as experienced overall in the construction industry, which was impacted by global supply problems.

We achieved an effective tax rate of 27.2% in fiscal 2022, meeting the guidance of 27% adjusted in November 2022.

2.3 Net assets, financial position and results of operations of the Group

2.3.1 Results of operations

Revenues

In addition to research and development revenues from collaborations, our revenues mainly include commercial COVID-19 vaccine sales. Revenues from contracts with customers decreased by €1,666.1 million year-on-year from €18,976.7 million to €17,310.6 million in fiscal 2022 as demand for our COVID-19 vaccine declined year-on-year, thus failing to match the strong revenue figures achieved in fiscal 2021. Our COVID-19 vaccine has been fully licensed, conditionally approved for marketing, or approved for emergency or temporary use in more than 100 countries and regions worldwide since December 2020, resulting in a total of more than 4 billion vaccine doses shipped globally by December 2022.

Accordingly, commercial revenues from the sale of our COVID-19 vaccine decreased by €1,661.6 million year-on-year from €18,806.8 million to €17,145.2 million in fiscal 2022.

Sales to collaboration partners represent sales of products manufactured by us and transferred to partners. When responsibilities for the manufacture and supply of COVID-19 vaccine change and COVID-19 vaccine is transferred between collaboration partners, a sale is made from one partner to the other. Revenues from our collaboration partner Pfizer are significantly impacted by the costs included therein for inventory write-downs and costs related to contracts with CMOs (Contract Manufacturing Organizations). The effects of this amounted to €850.0 million in fiscal 2022 and €31.0 million in the prior year. In fiscal 2022, revenue from products manufactured by us and sold to collaboration partners increased by a total of €253.4 million year-on-year from €970.9 million to €1,224.3 million.

In the allocation of marketing and distribution rights, territories were defined in which the collaboration partners each act as principals. Revenue from direct COVID-19 vaccine sales in our territories, Germany and Turkey, increased by €177.5 million year-over-year from €3,007.2 million to €3,184.7 million in fiscal 2022. The share of gross profit received by Pfizer as a collaboration partner based on our sales is recognized as cost of sales.

Based on Pfizer's and Fosun Pharma's COVID-19 vaccine sales in the collaboration partners' territories, we are entitled to a share of the respective gross profit from sales. This revenue is presented as a net amount in the statement of operations and is recognized as collaboration revenue during the commercial phase. Compared to the previous year, revenues in this context decreased by €2,092.5 million from €14,828.7 million to €12,736.2 million in fiscal 2022.

Research and development revenue from collaborations increased by €13.3 million year-on-year from €102.7 million to €116.0 million in fiscal 2022. The increase was mainly due to our collaborations with Pfizer (herpes zoster virus and influenza) and Sanofi S.A. (intratumoral mRNA-based therapies).

Cost of sales

Cost of sales increased by €83.5 million year-over-year from €2,911.5 million to €2,995.0 million during the 2022 financial year. The increase resulted primarily from the recognition of costs related to the sale of COVID-19 vaccines and includes Pfizer's share of our gross profit on sales from transactions in which we act as principal. Furthermore, the cost of sales included expenses due to inventory write-offs as well as expenses for production capacities derived from contracts with Contract Manufacturing Organizations (CMOs) that became redundant. These effects were driven by the launch of a new COVID-19 vaccine formulation, the transition from a monovalent vaccine to our Omicron-adapted bivalent COVID-19 vaccines, and the acceleration of internal manufacturing capacities during the 2022 financial year.

Research and development expenses

Research and development expenses increased by €587.8 million year-on-year from €949.2 million to €1,537.0 million during the 2022 financial year.

The increase mainly resulted from expenses in connection with the development and production of our Omicron-adapted bivalent COVID-19 vaccines. In addition, there was an increase in development expenses due to the progress of clinical trials for our pipeline candidates. Other reasons for the increase were higher wages, salaries and social security contributions due to increased headcount as well as higher expenses from our share-based payments.

Sales and marketing expenses

Sales and marketing expenses increased by €9.1 million year-on-year from €50.4 million to €59.5 million during the 2022 financial year.

The increase resulted in particular from increased costs for purchased services incurred in connection with the further development of our commercial activities for our COVID-19 vaccine. Furthermore, the increase was due to higher wages, salaries and social security contributions due to increased headcount.

General and administrative expenses

General and administrative expenses increased by €198.9 million year-on-year from €285.8 million to €484.7 million during the 2022 financial year.

The increase resulted in particular from higher purchased management, IT and legal consulting services as well as higher wages, salaries and social security contributions, mainly from increased employee numbers. Our transactions in

further business development, such as patent and license acquisitions, also contributed to the increase in administrative expenses.

Other operating result

Other operating income decreased by €95.7 million year-on-year from €504.0 million to €408.3 million during the 2022 financial year.

In other operating income, there was a significant increase in gains from foreign currency differences from the valuation of operating balance sheet items in fiscal 2022 (income of €727.4 million during the 2022 financial year compared to €446.3 million in the previous year). The increase reflects the change in the exchange rate and relates to our U.S.-dollar-denominated trade receivables mainly arising from our COVID-19 collaboration with Pfizer, U.S.-dollar-denominated trade payables and U.S.-dollar-denominated other financial liabilities mainly related to obligations incurred from our license agreements. In order to manage some of our transaction exposures, we again entered into forward foreign exchange contracts during the 2022 financial year, but these were not designated as hedging instruments. The increase in expenses from the recognition of changes in the fair value of these forward exchange contracts exceeded the increase from the aforementioned foreign currency differences from the measurement of operating balance sheet items (expenses of €385.5 million during the 2022 financial year compared with €86.3 million in the previous year).

Financial result

In contrast to the previous year, the financial result during the 2022 financial year represents net financial income of €311.4 million (€237.4 million net financial expenses in the previous year), an increase of €548.8 million.

Finance income during the 2022 financial year included €216.8 million fair value adjustments of the derivative embedded in the mandatory convertible bond (€277.8 million finance expense in the previous year). In February 2022, we notified Temasek (Ellington Investments Pte. Ltd.) ("Temasek") that we would exercise our early redemption option and fully redeemed the convertible note on March 1, 2022. The change in fair value was recognized up to the date of the early redemption and was primarily based on the change in our share price. In addition, €65.0 million of foreign exchange gains on financial items such as our U.S. dollar bank accounts and €48.5 million of interest income were recognized during the 2022 financial year compared to €66.2 million of foreign exchange gains and €1.5 million of interest income in the prior year.

Income taxes

Our tax expenses decreased by €1,234.2 million from €4,753.9 million in the previous year to €3,519.7 million during the 2022 financial year. Income taxes comprise actual taxes of €3,629.6 million (previous year: €4,535.0 million) and deferred tax income of €109.9 million (previous year: deferred tax expense of €218.9 million). Current income taxes include corporate income taxes and trade taxes of our German income tax group and are based on the calculated taxable income. Taxable income additionally takes into account deductible personnel expenses from our employee stock option programs. The Supervisory Board's decision on the settlement mechanism of the option rights at the end of September 2022 results in an actual tax saving of €406.1 million as of December 31, 2022. As the tax-deductible amount exceeds the amount of the related cumulative expense for share-based payments, the income tax of €374.1 million attributable to the excess is recognized directly in equity.

The deferred tax assets on tax losses relating to our German income tax group have already been fully utilized by fiscal 2021. During the 2022 financial year, the deferred tax income results from the recognition of deferred tax assets in connection with our employee stock option programs. In addition, we recognize deferred taxes on temporary differences. As of December 31, 2022, we do not recognize deferred tax assets on the losses of our U.S. tax group, our other companies outside Germany and the German companies that are not part of the tax group.

Annual result

During the 2022 financial year, a net profit of €9,434.4 million (previous year: €10,292.5 million) was generated.

2.3.2 Financial position

The goal of financial management is to ensure capital preservation as well as to provide liquidity for the growth of the companies. Proceeds from commercial sales of our COVID-19 vaccine have become our most important source

of liquidity and led to a significant increase in cash and cash equivalents in fiscal year 2022. Scenario and cash flow planning are used to determine liquidity needs.

Capital structure

As of December 31, 2022, our subscribed capital comprised 248,552,200 bearer shares with voting rights, of which 5,337,031 were held as treasury shares. The par value of our shares is €1.00 and evidences one voting right per share at the Annual General Meeting. The financing of ongoing clinical trials as well as the development, build-up of production capacity and commercialization of new formulations and Omicron-adapted bivalent COVID-19 vaccines was primarily funded from cash flow from operating activities.

In January 2022, we entered into a new research, development and commercialization collaboration with Pfizer to develop a potential first-of-its-kind mRNA-based vaccine for the prevention of shingles (herpes zoster virus or HZV). In connection with this collaboration, Pfizer agreed to make an equity investment in us and acquired 497,727 shares of our common stock for a total consideration of €110.6 million. The issuance of 497,727 ordinary shares with a par value of €0.5 million was entered into the commercial register on March 24, 2022.

In March 2022, we redeemed our mandatory convertible note by exercising our early redemption option, which was fulfilled in April 2022 - by issuing 1,744,392 ordinary shares. The nominal amount of €1.8 million was recognized in share capital and increased additional paid-in capital by €233.2 million as a result of the transaction. The declaratory entry in the commercial register was made on May 20, 2022.

In March 2022, the Management Board and Supervisory Board approved an American Depositary Shares (ADS) share repurchase program under which the Company may repurchase up to $1.5 billion worth of ADS over the next two years. On May 2, 2022, the first tranche of our ADS share repurchase program began with a value of up to $1.0 billion. In November 2022, the Management and Supervisory Boards approved the second tranche of our ADS share repurchase program, valued at up to $0.5 billion, which commenced on December 7, 2022. During the 2022 financial year, 6,945,513 ADSs were repurchased at an average price of $143.98 for a total amount of $1.0 billion (€986.4 million).

In June 2022, our shareholders approved the proposed special dividend of €2.00 per ordinary share (including shares held in the form of ADSs) at the Annual General Meeting, resulting in a total payment of €484.3 million.

No ADSs were sold during the 2022 financial year (prior year: 995,890 ADSs for gross proceeds of $200.0 million or €163.6 million) under the sales agreement (the "Sales Agreement") entered into in 2020 with Jefferies LLC and SVB Leerink LLC (now operating as SVB Securities LLC), acting as sales agents. Through the At-the-Market Offering Program, we may sell ADSs embodying ordinary shares in due course for aggregate gross proceeds of up to $500.0 million. As of December 31, 2022, the capacity remaining under the Sale Agreement was $207.1 million. Under the at-the-market offering program, the ADSs will be sold through the stock exchange and, therefore, shareholder preemptive rights will not be affected.

Capital expenditures

During the 2022 financial year, investments were made in particular in property, plant and equipment such as land, plant facilities and equipment in the amount of €329.2 million (previous year: €127.5 million). The investments were mainly made in connection with new buildings in Germany, including our acquisition of the land and the laboratory and office building at our main site at An der Goldgrube 12 in Mainz, Germany, and the down payment for the planned acquisition of a manufacturing facility in Singapore. Investments in intangible assets amounted to €34.2 million during the 2022 financial year (previous year: €10.1 million). During the 2022 financial year, no investments in intangible assets were made in connection with business combinations (previous year: € 43.3 million in connection with the acquisition of the subsidiary BioNTech R&D (Austria) GmbH, Vienna).

Depreciation of property, plant and equipment, such as buildings, plant facilities and equipment, amounted to €42.4 million during the 2022 financial year (previous year: €29.4 million). Amortization of intangible assets amounted to € 22.0 million (previous year: € 16.8 million).

Liquidity

As of December 31, 2022, our cash and cash equivalents amounted to €13,875.1 million compared to €1,692.7 million as of December 31, 2021. Primarily, the significant increase on the cash inflow during the 2022 financial year was due to payments received from commercial sales of our COVID-19 vaccine and our share of gross profit from commercial sales of our partner Pfizer's COVID-19 vaccine included therein. We receive a large portion of these

payments in U.S. dollars through our partner Pfizer, exposing us to significant concentration and currency risks. Operating activities, which mainly include the share of gross profit received as well as payments in connection with research and development activities, generated a positive cash flow from operating activities of €13,577.4 million (previous year: positive cash flow of €889.7 million).

We spent €35.3 million on investing activities during the 2022 financial year (previous year: €566.1 million). In contrast to the investments described above, the decrease mainly results from the repayment of time deposits with a term of more than three months in the amount of €375.2 million (previous year: payment of €375.2 million for investment in time deposits with a term of more than three months).

2.3.3 Net assets

As of December 31, 2022, total assets amounted to €23,279.1 million compared to €15,830.8 million as of December 31, 2021. The increase mainly resulted from increased cash and cash equivalents from the sale of our COVID-19 vaccine as well as our COVID-19 collaboration with Pfizer and subsequent developments:

Current and non-current assets

Compared with December 31, 2021, non-current assets increased by €598.6 million from €758.5 million to €1,357.1 million as of December 31, 2022. The increase resulted mainly from investments in property, plant and equipment, rights of use and intangible assets, which were partly offset by depreciation and amortization, and the recognition of deferred tax assets.

The increase in current assets by €6,849.7 million from €15,072.3 million as of December 31, 2021 to €21,922.0 million as of December 31, 2022 was mainly the result of an increase in cash and cash equivalents, while receivables from our COVID-19 collaboration with Pfizer and receivables from customers we directly supply in our territory decreased due to lower demand at the end of the 2022 financial year.

Equity

Compared with December 31, 2021, shareholders' equity increased by €8,161.9 million from €11,893.7 million to €20,055.6 million as of December 31, 2022. The increase resulted mainly from the profit for the 2022 financial year, partially offset by the effects of the share repurchase program in the amount of €986.4 million and the distribution of the special dividend in the amount of €484.3 million, as well as the settlement of the employee stock option programs. The equity ratio increased by 11.1 %-points to 86.2% (previous year: 75.1%).

Current and non-current liabilities

Compared with December 31, 2021, liabilities decreased by €713.6 million from €3,937.1 million to €3,223.5 million as of December 31, 2022. The decrease resulted mainly from income tax liabilities and the early redemption of the convertible note. The decrease was partially offset by increased liabilities from payroll taxes and social security contributions in connection with the settlement of the employee stock option programs (ESOP 2018 and LTI-plus).

2.4 Performance Indicators of the Group and BioNTech SE

2.4.1 Non-financial performance indicators of the Group and BioNTech SE

Innovation was classified as a material non-financial performance indicator during the 2022 financial year in line with the materiality analysis on sustainability carried out in 2020 and the qualitative review of this analysis and the GAS 20 criteria, and is used for internal management.

We use state-of-the-art technologies to develop individualized immunotherapies in the fight against cancer, infectious diseases and rare diseases. We support the United Nations Sustainable Development Goals (SDGs). In doing so, research makes a relevant contribution to supporting the third United Nations Sustainable Development Goal (SDG 3): ensuring healthy lives for all at all ages and promoting well-being.

Progress in research achievements, such as the further development and expansion of commercialization of the COVID-19 vaccine, is a key performance indicator. We are working to clinically demonstrate the benefit of additional treatment approaches, further develop additional product candidates in the form of pivotal studies, and continuously expand collaborations and manufacturing capabilities to offer innovative treatments to patients around the world.

2.4.2 Financial performance indicators of the Group and BioNTech SE

The following financial performance indicators are the focus of our management of operational business development. We use the indicators on the basis of current exchange rates (not currency-adjusted) and take into account effects from potential M&A activities or collaborations insofar as they have been published.

Commercial COVID-19 vaccine revenues

These revenues include expected revenues related to our share of gross profit from sales by our collaboration partners in the territories allocated to them based on marketing and distribution rights, expected revenues from direct COVID-19 vaccine sales to customers in our territories, and expected revenues from sales to our collaboration partners of products manufactured by us.

Revenue is strongly influenced by the volumes available under the collaboration and the agreed upon purchase quantities and serves as a performance indicator of our current commercial profitability.

For further information regarding the composition of commercial COVID-19 vaccine revenues and the components included therein, see the discussion of sales revenue in 2.3.1 Results of Operations.

Research and development expenses

Research and development expenses are an indicator of our future earnings potential, as this is highly dependent on the development of the clinical pipeline and the responsible use of the financial resources generated.

Selling, general and administrative expenses

These expenses include sales and marketing expenses as well as general and administrative expenses. We use this measure to manage the costs associated with the expansion of the sales and marketing organization to ensure the infrastructure and digital capacity necessary for future market-ready products, and to manage the internal administrative and coordinative functional areas associated with the expansion of research and development, such as finance, human resources, or business development, with regard to the associated cost development.

Investments in property, plant and equipment and intangible assets

Capital expenditures for property, plant and equipment and intangible assets comprise expenditures for the acquisition of property, plant and equipment as well as expenditures for the acquisition of intangible assets and rights of use, unless they are made as part of business combinations. These mainly include expenditures for the expansion and improvement of our research and development and manufacturing facilities and investments in a state-of-the-art IT infrastructure to support the company in all digitalization projects.

Effective annual tax rate of the BioNTech Group

The effective income tax rate is an important parameter in profitability and liquidity planning.

2.5 Overall statement on the business performance and position of the Group and BioNTech SE

Through our basic research and our work in developing immunotherapies, we aim to improve the health of people worldwide by harnessing the full potential of the immune system to fight cancer, infectious diseases and other serious illnesses. At this stage, these activities still require high investments. In addition to financial metrics, we continue to measure our business success primarily by our research performance, and in particular by the achievement of set targets. Together with collaboration partners, we have developed a solid and diversified pipeline of product candidates in oncology and infectious diseases. Currently, more than 25 product candidates are in more than 30 clinical trials and more than 30 research programs. In this respect, we have further developed collaborations and made positive pipeline progress during the 2022 financial year in line with expectations and plans. We are therefore well equipped to continue our positive development in 2022 in 2023 in a further challenging market environment.

3. Management Report of BioNTech SE

3.1 Supplementary notes to the separate financial statements according to HGB

BioNTech SE is the parent company of the BioNTech Group and is headquartered in Mainz, Germany. In addition, at the end of the 2022 financial year, the BioNTech Group included 33 group companies at six different locations in Germany, two different locations in the United States and one location each in Australia, China, Austria,

Rwanda, Singapore, Turkey and the United Kingdom. Key management functions for the Group such as corporate strategy, risk management, investment management tasks, executive and financial management as well as communication with important target groups of the Group are the responsibility of the Management Board of BioNTech SE. With its operating activities, in particular in connection with the two collaboration agreements with Pfizer and Fosun Pharma, which were concluded by BioNTech SE in the context of the COVID-19 vaccine program, BioNTech SE generated the major part of the Group's revenues.

BioNTech SE is not managed separately using its own performance indicators, as the company is integrated into the Group's management system. The explanations given for the group apply. The economic framework conditions of BioNTech SE essentially correspond to those of the BioNTech Group and are described in detail in Section 2.

3.2 Net Assets, Financial Position and Results of Operations of BioNTech SE

3.2.1 Results of operations

	Years ended December 31,	
(in millions)	**2022**	**2021**
Revenues	12,514.5 €	14,933.8 €
Cost of sales	(1,615.7)	(1,642.0)
Gross profit	**10,898.8 €**	**13,291.8 €**
Research and development expenses	(1,519.7)	(816.2)
Selling expenses	(29.1)	(12.8)
General administrative expenses	(475.4)	(226.4)
Other operating income	1,041.3	638.9
Other operating expenses	(717.1)	(118.0)
Operating result	**9,198.8 €**	**12,757.3 €**
Income from profit transfer	2,863.3	2,691.6
Other interest and similar income	51.8	6.0
Interest and similar expenses	(30.9)	(19.1)
Expenses from loss transfer	(86.9)	(52.2)
Profit before taxes	**11,996.1 €**	**15,383.6 €**
Income taxes	(3,370.1)	(4,606.0)
Net income	**8,626.0 €**	**10,777.6 €**

Revenues

Revenue decreased by €2,419.3 million year-over-year from €14,933.8 million to €12,514.5 million during the 2022 financial year. Commercial revenue decreased due to lower demand for our COVID-19 vaccine and is largely attributable to revenue recognition under the collaboration agreement with Pfizer, to which BioNTech SE is a party.

Cost of goods sold and services rendered to generate revenues

Cost of sales decreased by €26.3 million year-over-year from €1,642.0 million to €1,615.7 million during the 2022 financial year. Cost of sales primarily includes the share of our gross profit that Pfizer receives as a collaboration partner based on our sales. In addition, sales-related licensing costs for third-party intellectual property contribute to the cost of sales.

Research and development expenses

Research and development expenses increased by €703.5 million year-on-year from €816.2 million to €1,519.7 million during the 2022 financial year. The increase resulted mainly from expenses from the payment of payroll taxes and social security contributions in connection with the exercise of our share-based payments. Other reasons for the

increase were higher expenses from the progress of clinical trials for our pipeline candidates as well as higher wages, salaries and social security contributions due to increased headcount.

General administrative expenses

General and administrative expenses increased by €249.0 million year-on-year from €226.4 million to €475.4 million during the 2022 financial year. The increase resulted in particular from expenses from the payment of payroll taxes and social security contributions in connection with the exercise of our share-based payments, higher purchased management, IT, and legal consulting services, and higher wages, salaries, and social security contributions, mainly from increased headcount. Our transactions in further business development, such as patent and license acquisitions, also contributed to the increase in administrative expenses.

Other operating result

Other operating income decreased by €196.7 million year-on-year from €520.9 million to €324.2 million during the 2022 financial year. The income included here mainly comprised foreign currency gains from the translation of our trade receivables denominated in U.S. dollars, which mainly arose in connection with our COVID-19 collaboration with Pfizer. The offsetting effects mainly include expenses from forward exchange contracts.

Financial result

The financial result, consisting of the effects of profit/loss transfer and interest income/expense, increased by €171.0 million year-on-year from €2,626.3 million to €2,797.3 million in the financial year 2022. The increase resulted in particular from the higher income from the profit transfer from affiliated companies (net profit transfer of €2,776.4 million; previous year: net profit transfer of €2,639.4 million). The net interest expense included in the financial result improved by €34.0 million compared with the previous year, from €13.1 million in interest expense to €20.9 million in interest income in the financial year 2022.

Taxes on income and earnings

Taxes on income amounted to €3,370.1 million during the 2022 financial year (previous year: €4,606 million). Income taxes comprise actual taxes of €3,442.3 million (previous year: €4,533.7 million) and deferred tax income of €72.3 million (previous year: deferred tax expense of € 72.3 million). The decrease is due to a reduced tax rate, lower revenues and income recognition related to our COVID-19 vaccine sales and includes corporate income taxes and trade taxes of our German income tax group and is based on the calculated taxable income. Taxable income additionally takes into account deductible personnel expenses from our equity compensation programs. The Supervisory Board resolution on the ESOP 2018 resulted in a current cash settlement obligation in HGB accounting with regard to the payroll tax resulting from the exercise. Thus, in HGB, the difference between the value of the payroll tax payout and the fair value corresponding to the pro-rata rights at the grant date was recognized as an additional expense. Our stock compensation programs resulted in a total actual tax saving of €406.1 million. Against the background of the additional expense for the ESOP 2018 in the HGB, only the income tax of €187.0 million for the excess deductible amount for tax purposes was recognized directly in equity.

Annual result

Net income of €8,626.0 million (previous year: €10,777.6 million) was reported during the 2022 financial year.

3.2.2 Financial position

The objective of the financial management of BioNTech SE is essentially identical to that of the Group and involves providing liquidity for the growth of the Group companies.

Capital structure

As of December 31, 2022, our subscribed capital comprised 248,552,200 voting bearer shares, of which 5,337,031. were held as treasury shares. Additional paid-in capital decreased by €578.4 million mainly in connection with the exercise of our share-based payments. The change also includes the recharges from commitments in connection with the exercise of share-based payments for employees of subsidiaries, which are fulfilled by BioNTech SE.

Investments

Total investments of €703.5 million (previous year: €352.9 million) were made in the financial year 2022. This amount comprised investments in property, plant and equipment of €75.7 million (previous year: €26.9 million) and investments in intangible assets of €31.8 million (previous year: €6.7 million), as well as investments in shares, loans to

affiliated companies and shareholdings of €596.0 million (previous year: €319.3 million), driven by financing for the subsidiaries.

Depreciation of buildings, other equipment, office furniture and equipment amounted to €14.4 million in 2022 (previous year: €10.6 million). Amortization of intangible assets amounted to €12.0 million (previous year: €9.7 million).

Liquidity

As of December 31, 2022, BioNTech SE had cash and cash equivalents of €13,798.0 million compared to €1,396.8 million as of December 31, 2021. Primarily, the significant increase to the cash inflow during the 2022 financial year was due to payments received from commercial sales of the COVID-19 vaccine under the collaboration agreement with Pfizer and from COVID-19 vaccine sales by our subsidiary in our territories received by BioNTech SE through the profit and loss transfer agreements. We receive a large portion of these payments in U.S. dollars through our partner Pfizer, which exposes us to significant concentration and currency risks. Operating activities, which mainly include the share of gross profit received as well as payments in the context of research and development activities, generated a positive cash flow from operating activities of €13,148.0 million (previous year: positive cash flow of €854.8 million).

3.2.3 Net assets

(in millions)	December 31 2022	December 31 2021
Assets		
Fixed assets		
Intangible assets	71.9 €	52.8 €
Property, plant and equipment	99.9	47.0
Financial assets	1,279.7	755.6
Total fixed assets	**1,451.5 €**	**855.4 €**
Current assets		
Inventories	0.7	1.6
Receivables and other assets	7,273.3	13,114.9
Cash on hand and bank balances	13,798.0	1,396.8
Total current assets	**21,072.0 €**	**14,513.3 €**
Prepaid expenses	63.5	24.5
Total assets	**22,587.0 €**	**15,393.2 €**
Liabilities and shareholders' equity		
Equity		
Subscribed capital	248.6	246.3
Capital reserve	1,295.4	1,883.8
Treasury shares	(5.3)	(3.8)
Retained earnings	9,445.4	5,132.4
Accumulated profit	8,961.2	5,132.3
Total equity	**19,945.3 €**	**12,391.0 €**
Provisions		
Tax provisions	606.1	1,573.3
Other provisions	923.3	1,096.2
Total provisions	**1,529.4 €**	**2,669.5 €**
Liabilities		
Bonds	-	100.4
Trade accounts payable	57.2	55.1
Liabilities to affiliated companies	389.6	71.6
Other liabilities	651.6	13.4
Total liabilities	**1,098.4 €**	**240.5 €**
Deferred income	13.9	19.9
Deferred tax liabilities	-	72.3
Total liabilities and shareholders' equity	**22,587.0 €**	**15,393.2 €**

As of December 31, 2022, total assets amounted to €22,587.0 million compared to €15,393.2 million as of December 31, 2021. The increase was mainly due to increased cash and cash equivalents from our COVID-19 collaboration with Pfizer and payments received from COVID-19 vaccine sales by our subsidiaries through the profit and loss transfer agreements, as well as the following developments:

Fixed assets and current assets

Compared with December 31, 2021, non-current assets increased by €596.1 million from €855.4 million to €1,451.5 million as of December 31, 2022. In addition to additions to intangible assets and property, plant and equipment, the increase in financial assets is attributable to further financing transactions of subsidiaries.

Compared to December 31, 2021, current assets increased by €6,558.7 million from €14,513.3 million as of December 31, 2021 to €21,072.0 million as of December 31, 2022, primarily as a result of increased cash and cash equivalents from our COVID-19 collaboration with Pfizer and payments received from our subsidiaries' COVID-19 vaccine sales through profit and loss transfer agreements.

Equity

Compared with December 31, 2021, shareholders' equity increased by €7,554.3 million from €12,391.0 million to €19,945.3 million as of December 31, 2022. The increase resulted primarily from the net income generated during the 2022 financial year. The equity ratio increased by 7.8 %-points to 88.3% (2021: 80.5%).

Provisions and liabilities

Compared with December 31, 2021, provisions and liabilities decreased by €282.2 million from €2,910.0 million to €2,627.8 million as of December 31, 2022. The decrease mainly resulted from income tax provisions. The decrease was partly offset by increased liabilities from payroll taxes and social security contributions in connection with the settlement of the employee stock option programs (ESOP 2018 and LTI-plus).

3.3 Forecast, risk and opportunity report

The business development of BioNTech SE is essentially subject to the same risks and opportunities as the BioNTech Group, as BioNTech SE participates in the risks of the group companies via its investments. As a result of the central financial management of the BioNTech Group, all financing transactions are essentially conducted via BioNTech SE. As the parent company of the BioNTech Group, BioNTech SE is integrated into our Group-wide risk management.

3.4 Relationships with affiliated companies

Final Declaration of the Management Board of BioNTech SE on the Report on Relationships with Affiliated Companies for the 2022 Financial Year (Dependent Company Report pursuant to Section 312 para. 3 sentence 3 AktG):

"According to the circumstances known to us at the time when the legal transactions were carried out, BioNTech SE received appropriate consideration for each legal transaction listed and has not been disadvantaged as a result. In the reporting year, no measures were taken or omitted at the instigation of or in the interest of ATHOS KG or its affiliated companies in the period from January 1 to December 31, 2022."

4 Forecast, risk and opportunity report

4.1 Forecast report

We are part of the pharmaceutical and biotechnology industry, which is characterized nationally and internationally by its innovative strength. Global demographic change and medical progress offer the industry solid growth prospects. Based on our proprietary mRNA technology, we were the first company in the world to develop a highly effective and safe vaccine against COVID-19 in compliance with scientific standards and to successfully market it globally within one year. This demonstrates our ability to develop and commercialize medicines and therapies based on innovative technologies that add significant value for patients and society.

We expect commercial COVID-19 vaccine revenues of approximately €5.0 billion during the 2023 financial year.

This revenue guidance is based on various assumptions including but not limited to the expected transition from an advanced purchase agreement environment to commercial market ordering starting in 2023 and a regulatory recommendation to adapt the COVID-19 vaccines to address newly circulating variants or sublineages of SARS-CoV-2. Our estimated COVID-19 vaccine revenues reflect expected deliveries under existing or committed supply contracts and anticipated sales through traditional commercial orders. A re-negotiation of the existing supply contract with the European Commission is ongoing, with the potential for a rephasing of deliveries of doses across multiple years and/or a volume reduction. While we expect an increased demand from a vaccine adaptation, fewer primary vaccinations and lowered population-wide levels of boosting are anticipated. We assume a seasonal demand, moving expected revenue generation significantly to the second half of the year 2023.

Revenue is strongly influenced by the volumes available under the collaboration and the agreed upon purchase quantities, to which we have adjusted our production capacities accordingly. In addition to the further expansion of our mRNA production facilities in Marburg, Germany, we plan to further build our own fully integrated mRNA production sites in Asia and Africa, and furthermore to deploy turnkey mRNA production facilities based on our container solution "BioNTainer" in additional countries.

We aim to generate long-term and sustainable revenue from the COVID-19 vaccine program by expanding access to the vaccine through supply expansion, broader distribution with a well-known brand, and continuous optimization of the vaccine. In addition to the vaccine already released and adapted to Omicron, we are working with Pfizer to create the conditions to flexibly adapt the vaccine to other potential future mutations if necessary, to optimize the formulations, and to make the product available to additional patient groups through indication extensions.

With the successful production and commercialization of our COVID-19 vaccine, we have built up a lot of expertise and a global network to develop, produce and commercialize future products worldwide. Our future earnings potential is highly dependent on the development of the clinical pipeline and the responsible use of the financial resources generated. We intend to reinvest the proceeds from the sale of our COVID-19 vaccine in our advanced clinical candidates as well as in the further expansion of our therapeutic platforms across all four drug classes. During the 2023 financial year, we expect to make significant progress in several clinical trials as well as data updates in numerous development programs. In connection with the expansion of our product pipeline in oncology and infectious diseases and the expansion into new areas such as autoimmune diseases, regenerative medicine and allergies, we expect our research and development costs to continue to increase. In this context, we expect expenses of between €2.4 billion and €2.6 billion during the 2023 financial year.

For the internal administrative and coordinative functional areas related to the expansion of research and development, such as finance, human resources or business development, costs are also expected to increase. During the 2023 financial year, we expect selling, general and administrative expenses of between €650 million and €750 million.

Last but not least, investments in property, plant and equipment and intangible assets will also increase. During the 2023 financial year, we expect investments in property, plant and equipment and intangible assets of €500 million to €600 million. This includes expenditures for the expansion and improvement of our research and development and the manufacturing facilities described above, as well as investments in a state-of-the-art IT infrastructure to support the company in all digitalization projects.

We expect an estimated cash-effective tax rate of 27% for the 2023 financial year.

The extent to which the COVID-19 pandemic continues to impact our operations and what protective measures remain necessary depends on future developments regarding new variants, which are highly uncertain and cannot be predicted with certainty. We will continue to evaluate potential impacts and announce appropriate updates.

During the 2022 financial year, we strengthened our technology platforms, digital capabilities and infrastructure through sustained investments, selected strategic partnerships and acquisitions to create long-term value for patients, shareholders and society. The 2023 financial year will seamlessly build on this with the goal of establishing ourselves as a leader in 21st century immunotherapies with a multi-platform strategy and diversified product pipeline.

4.2 Risk report

4.2.1 Risk governance framework and risk management system

Risk Governance Framework

As a next-generation immunotherapy company, we are exposed to numerous uncertainties and changes resulting, for example, from the fundamentally new research approach. The governance structure within BioNTech is based on the "Three Lines Model" to systematically manage risks. Our aim is to anticipate possible developments at an early stage and to systematically record, assess and manage any resulting risks. It is equally important to identify and exploit opportunities. In operational terms, the *first line* is concerned with ensuring compliance with the requirements defined in the second line and implementing controls as part of our day-to-day activities. In addition to risk management, the *second line* also includes our internal control system (see 4.2.2 Internal Control System and Internal Audit) and our Compliance & Ethics Program (see 5.4 Integrity and Ethics). This line identifies risks, defines the control framework and provides guidelines, among other things. The *third* line is Internal Audit, which was newly implemented in the 2022 financial year (see 4.2.2 Internal control system and Internal Audit).

Risk management system

For us, a functioning risk management system (RMS) is a central element of value-based corporate management as part of our risk governance framework.

Our enterprise-wide risk management system covers strategic, operational, financial, legal and reputational risks as well as the corresponding opportunities.

Risk Reporting

The aim is to identify, monitor and manage these risks at an early stage. Risks and their impact on the company are presented transparently to enable effective management of these risks. To this end, we use internal and external sources of information.

Central Risk Management prepares an overall risk report for the Board of Management twice a year. The Management Board also informs the Audit Committee twice a year. The Audit Committee deals with this report in its meetings. If - in addition to the regular reporting of major risks - unexpected risks arise, these are reported directly to the Management Board. The Audit Committee of our Supervisory Board reviews the effectiveness and appropriateness of the risk management system and also uses the newly created Internal Audit department for this purpose.

The further development of the risk management system was again the focus of the Management Board and Supervisory Board in fiscal year 2022, and methods and processes are being continuously refined.

Risk identification

Based on the risks recorded in the previous period, these were reassessed in the 2022 financial year. New risks were recorded and analyzed in the same way as in the previous year. Existing risks were reviewed and sharpened with regard to their content and assessment, and adjusted where necessary.

The individual risks are assigned to so-called risk owners who are responsible for managing these risks and who have the necessary competencies and responsibility to do so. The risk owners assess the individual risks quantitatively by determining the probability of occurrence and the expected impact on the enterprise value. In addition, the risks are expanded to include the dimensions "reputational damage" and "legal relevance" and assessed qualitatively.

The risk survey process is generally carried out twice a year (in the first and third quarters). Ad hoc risks are continuously recorded and assessed.

Since the 2021 financial year, the risk survey has been supported by a risk management tool. Within the tool, risks are aggregated using a Monte Carlo simulation, evaluated using a value-at-risk approach and then managed according to the defined risk-bearing capacity.

We continuously monitor identified risks and counter them in various ways. For each risk, we make an individual decision as to whether to accept the risk or not. Alternatively, we consider whether the risk can be covered (or transferred) by insurance, for example, or mitigated by other measures.

Risk assessment

Risks are assessed in monetary terms according to "probability of occurrence" and "damage potential". The probability of occurrence is assessed in the range between "very unlikely" and "very likely”. The damage potential is assessed in the range between "low" and "critical". Depending on the combination of the characteristics, risks are classified in three categories: high, medium and low.

However, risks with a currently low estimated loss potential may have a greater impact in the future than currently assessed and are therefore continuously monitored by central risk management.

4.2.2 Internal control system and internal audit

Internal control system

Our internal control system (ICS) aims to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with International Financial Reporting Standards (IFRS) or the German Commercial Code (HGB). By listing our share on the Nasdaq Global Select Market, we have established our internal control system based on SOX regulations (Sarbanes-Oxley Act Section 404).

The ICS control process is depicted in an ICS lifecycle. This consists of the six successive or parallel steps shown below:

- Scoping phase

- Effectiveness test
- Reconciliation of audit results
- Activity monitoring
- Quality assurance of the self-assessments
- ICS reporting

The audit results are regularly communicated to the Management Board and Supervisory Board and released as part of the annual financial statements. The scope of the ICS is defined across all processes. These audit results include not only financial reporting topics, but also more extensive processes and topics from general areas, such as treasury, taxes, IT, compliance, and operational topics.

Based on the COSO model (Committee of Sponsoring Organizations of the Treadway Commission), our internal control system for financial reporting is divided into five components: control environment, risk assessment, control activities, information and communication, and monitoring of the internal control system.

The effectiveness of internal control over financial reporting is regularly reviewed and assessed against the COSO components in accordance with Section 404 SOX. As of December 31, 2022, the control system over financial reporting was assessed as effective by our Management Board.

Systemic limitations may arise in the design of internal control over financial reporting and in relation to the thoroughness of the control process, so there can be no absolute assurance that financial reporting objectives will be achieved and misstatements will always be prevented or detected.

Internal Audit

The Internal Audit function was newly implemented in the 2022 financial year. As an independent auditing and advisory body without operational responsibility, Internal Audit audits organizational units, processes, corporate functions and projects on behalf of the Board of Management and the Audit Committee following a risk-based selection process. In 2022, among other things, the risk management system was audited. Audit findings result in agreed measures that are monitored by Internal Audit until they are fully implemented.

4.2.3 Risks

Sustainability risks

Through cooperation between the areas of responsibility Risk Performance and Corporate Social Responsibility (CSR), material sustainability risks have been identified and integrated into the company-wide risk management system since the 2022 fiscal year. The focus of the analyses in 2022 was on climate risks in accordance with the Task Force on Climate Related Financial Disclosures (TCFD) and human rights risks in accordance with the Supply Chain Due Diligence Act (LkSG), which has been in force for BioNTech since January 1, 2023.

We continuously plan to integrate climate-related topics (climate risks according to TCFD and targets according to the Science Based Targets Initiative, SBTi) into risk management. In 2023, we will include potentially material financial and physical impacts of climate change in a separate category within corporate risk management. An overview of identified climate risks for us, as well as governance and strategy related to climate risks, can be found in the Sustainability Report for fiscal 2022. Metrics and targets for assessing and managing relevant climate-related risks are published without external review in the Sustainability Report 2022 and on the website at www.biontech.de. The climate targets for 2030 according to SBTi have been submitted to SBTi for validation in 2022.

In 2022, we launched a gap analysis to review the measures taken to date to deal with human rights risks, focusing on the risks specified in section 2 para. 2 of the LkSG. This review, in preparation for a comprehensive risk analysis in accordance with section 5 of the LkSG, covered our own business operations and our direct suppliers. The implementation of a proactive risk analysis for the early identification of potential and timely mitigation of actual human rights and environmental risks and incidents in accordance with the LkSG is a high priority for us. It will be conducted in coordination between the Human Rights Officer, CSR team, Risk Management as well as with the support of Internal Audit. Risk analysis is used both globally and in each country in which we operate and is updated annually or on an ad hoc basis to assess potential risks in the event of significant changes to the company's operations or business relationships. We conduct ad hoc risk assessments based on human rights and environmental risks as required.

Risks with the greatest impact

Risks from strategic transformation and integration

We are in a constant process of strategic adjustments. If we are unable to implement our plans as planned, we are exposed to certain risks. For example, the benefits of the measures could be lower than originally estimated, they could have an impact later than anticipated, or they could fail to have any effect at all. Any of these factors - alone or in combination - could have a negative impact on our business, net assets, financial position and results of operations. The transformation is being addressed through various strategic initiatives; these include in particular the expansion of existing departments and cross-functional teams as well as the expansion of our tool support and the underlying process landscape. The risk is assessed as high.

Employees

Our workforce plays a crucial role in our transformation. The skills of our employees are an important factor for our business success. If we are unable to recruit or retain sufficient numbers of experts, this could have a negative impact on our business in the future. New processes and capacities are being developed and built up to counteract the bottleneck caused by the generally high market demand for the recruitment of new employees and relevant specialist personnel. The risk is assessed as medium.

Legal, IP and Insurance

The legal risks currently relevant to us can be grouped into two categories: contractual risks on the one hand and patent-related risks on the other.

On the contractual side, we are confronted with possible breaches of contract. Different interpretations of the contracts, the claims regulated therein, and the allocation of sales and costs could lead to disputes. To counter the risk, provisions are recognized - provided the recognition criteria are met. A medium residual risk remains.

In addition, in the course of our normal business activities, we may from time to time unintentionally infringe the protected intellectual property of others. These patent-related risks are countered by continuous monitoring of patent applications. In addition, in such cases we continuously review whether the related circumstances change in the future, including whether the recognition of a provision might be necessary and whether potential compensation claims exist against such claims. The risk is assessed as medium.

The intentional or unintentional infringement of our intellectual property by third parties is currently classified as a low risk, but would primarily have long-term effects.

Due to rapid growth in recent years, there is a looming gap in insurance management. Not all events or different events may be fully insured. Constant growth makes it difficult for insurance service providers to evaluate, coverage amounts and related premiums may be set too high or too low. We are in continuous exchange with insurance companies to find an acceptable solution regarding conditions and costs, a central insurance management has been established and several insurance brokers are already engaged. Until the measures taken are fully implemented, management classifies the risk as medium.

Commercial products

With our COVID-19 vaccine, we have launched our first commercial product and at the same time represent an effective component in the fight against the COVID-19 pandemic. Sales forecasted by assumptions are subject to fluctuations and may thus fall short of our own expectations. These fluctuations can be triggered, for example, by an incorrect assessment of market size or unforeseen changes in market demand. This includes the pandemic status declared by the WHO for 2023, on which the adjustment of our vaccine doses as well as distribution channels and the guarantee of regular supply depend. Changes in the requirements for our vaccine, missed or delayed adaptation to new virus variants, or even superior products from competitors could also have an aggravating effect here. Internal capacities are being built and expanded to address the complex landscape of emergency approvals, temporary approvals or conditional approvals. We continuously monitor and analyze market and industry events in order to identify market entry barriers, growing competition or changes in healthcare legislation at an early stage. In addition, we are in active exchange with government representatives, health insurers or other payers. The risk is classified as high.

The various contracts with our collaboration partners and the associated profit share are subject to certain expectations on our side. Despite various reconciliations and our own assessment, actual results may fall short of our expectations, e.g., due to lower sales or market shares in our partners' regions as well as increased costs on our partners'

side. In order to be able to better assess developments, we are in intensive and constant exchange with our partners. The risk is classified as high.

Research & Development

Currently, more than 25 product candidates are in more than 30 clinical trials and more than 30 research programs; thus, our main activity continues to be research and development as well as the support of clinical trials. Naturally, this also involves the greatest risks. For scientific, procedural or regulatory reasons, product candidates may not be developed to market maturity, or may be developed only with delays. Similarly, despite optimal preparation, unforeseeable complications or side effects may arise in the course of clinical trials, which in the worst case could lead to legal disputes and compensation payments.

The increasing number of candidates in our product pipeline also creates growing impacts on the company's risk position. We constantly monitor the development of our industry and the market in order to address uncertain factors during the research and development of our oncology and infectious disease candidates (e.g. clinical care costs, the number of treatable patients, potential additional costs due to delays in clinical trials, a more difficult patient search due to the pandemic or an additional study to collect further data) accordingly. The risk is considered to be high.

In connection with the continuation of clinical trials, we are in close contact with the clinical centers located in the countries affected by the COVID-19 pandemic and are continuously assessing the impact of the COVID-19 pandemic on clinical trials, expected timelines and costs. As a result, there have been delays in the relevant studies. We are constantly monitoring the development of our industry and the market in order to be able to counteract accordingly. The availability and performance of suppliers, licensors and Contract Research Organizations (CROs) due to the impact of COVID-19 were only marginally affected.

Physical and IT security

The company's continued visibility and growing international presence lead to a diversification of security risks. Physical security risks include criminal threats against BioNTech's assets, harassment of employees, unauthorized access, and other unwanted acts against BioNTech's business operations. Through a security transformation program and the implementation of appropriate physical security standards, BioNTech seeks to achieve and maintain a consistent level of protection for all BioNTech agents and assets worldwide.

The protection of our data and the security of our information also includes unauthorized external or internal access to our supply chain, infrastructure, or intellectual property, as well as blackmail or denial-of-service attacks, fraud, and phishing. We take various measures to counter these risks; for example, we continuously improve our security policies and guidelines, carry out IT risk and application security assessments, and have set up a vulnerability scanner and incident management system. The remaining risk is classified as medium.

Compliance and regulation

The rapid growth of recent years favors the risk for a delay in quarterly or annual financial statements. Increased media attention and regulatory requirements also have an impact on timelines, as does the interaction between internal departments and external collaboration partners as sources of information. Processes and systems required for this are being established. The remaining risk is classified as high.

In order to avoid unintentionally incorrectly issued customs declarations, the internal customs department is currently being further expanded. The risk is considered to be low.

The withholding and deduction of taxes on remuneration for the transfer of the use or the right to use rights, in particular copyrights and industrial property rights, is actively monitored by our tax department. The risk is considered to be low.

In the area of compliance, the focus is on combating corruption, bribery and money laundering. In addition, collaboration with healthcare experts, conflicts of interest, unfair promotion of medical products, insider trading, as well as discrimination and occupational health and safety are actively addressed through established processes and various training, guidance and guidelines available to our employees. The risk from this misconduct is considered to be low.

Another focus is placed on avoiding bribery and corruption. Due to established processes and training, the risk is classified as low.

Processes and responsibilities must grow and adapt with rapid growth. It may not be possible to adequately meet the requirements of the Sarbanes-Oxley Act (U.S. federal law designed to improve reporting by companies using the U.S. public capital market). The confidence of the market or individual investors could be damaged. To counter this, the internal control system is constantly being expanded and further developed. There is a low risk.

Finance

A large proportion of the payments received are in US dollars. Consequently, we incur an exchange rate risk for the funds required in euros. With the aim of preserving capital, surplus liquidity is invested with various banks and money market funds with investment grade ratings, subject to limits defined in a risk guideline. Any interest rate risks in this context may also lead to opportunities as a result of rising interest rates in the short term. With regard to foreign currency investments, we also identify exchange rate risks. Exchange rate and interest rate fluctuations can reduce the value of our financial positions. We limit the effects of the identified risks with the aid of a coordinated and consistently implemented risk strategy. As a matter of principle, forward exchange contracts are concluded as hedging instruments. In addition, our risk strategy takes into account natural hedging relationships. In addition, developments on the financial markets are continuously monitored to enable us to respond to exceptional events at short notice. The risk is assessed as low.

External/global risks

In times of ever new and rapidly successive crises as well as global events, climate change and extreme weather events such as floods or droughts, the pandemic or the current inflation are increasingly moving into the focus of strategic considerations. This also includes current conflicts such as the Russia-Ukraine war and a possible further escalation and expansion of this conflict as well as possible trade wars or impending local conflicts in various regions worldwide.

The consequences of this, such as interrupted supply chains (for example due to import restrictions, supply bottlenecks or low water in the Rhine) and resource shortages (for example the gas shortage) are continuously monitored and assessed by our business continuity management. The risk is assessed as low.

4.2.4 Assessment of the internal control system and risk management system by the Management Board

The company-wide risk situation is evaluated at the half-yearly Management Board meetings. The results of the internal control process are presented to the Audit Committee on a quarterly basis and an overall statement is made on the adequacy and effectiveness of the ICS and RMS. Based on this, the Management Board has no indication that our ICS and RMS were not adequate or effective in their entirety as of December 31, 2022.

We are convinced that we can continue to master challenges and exploit opportunities in the future without taking unacceptably high risks. In doing so, we strive for a balanced relationship between opportunities and risks. Our aim is to increase added value for our stakeholders by analyzing and seizing new opportunities.

4.2.5 Assessment of the overall risk situation by the Management Board

The assessment of the overall risk situation is the result of the consolidated consideration of all significant risk categories or individual risks.

At the time of preparation of the report based on the above-mentioned risks, there are no developments that pose a threat to the continued existence of BioNTech SE and its affiliated subsidiaries.

4.3 Opportunity report

In pursuit of our vision, we are focused on transforming the treatment of cancer and infectious diseases and creating long-term value for patients, society and our shareholders through innovative and personalized medicines and therapies that harness the full potential of the human immune system. Based on the key building blocks listed below, we believe we are well positioned to provide people around the world with access to our therapies and medicines and to ensure that they benefit from them.

Pipeline of preclinical programs and clinical product candidates

Underpinning our vision is our understanding and longstanding experience in mRNA, synthetic biology and other innovative technologies. We work with a broad range of tools across multiple technology platforms, including a wide

spectrum of potentially first-in-class therapeutic approaches, to provide individually tailored therapies for diverse disease forms and manifestations. To this end, we also employ bioinformatics processes and algorithms. Our platform is composed of proprietary technologies in the drug classes of mRNA therapeutics, programmable cell therapies, next-generation antibodies and small molecule immunomodulators.

Our diversified product portfolio represents a large repertoire of potential future market-ready products, which at the same time enables us to reduce the impact of product candidates that do not make it to market on the overall development of the Company. Currently, 25 product candidates are in more than 30 clinical trials and more than 30 research programs. In late 2022, we initiated two Phase 1 clinical trials in infectious diseases: one for a product candidate against malaria and another for a product candidate against herpes simplex virus. A first clinical trial for a product candidate against tuberculosis is expected to start within the first half of 2023.

The rapid development, successful commercialization and delivery of our COVID-19 vaccine based on our proprietary mRNA technology has demonstrated the potential of immunotherapies. The speed and success of the development of a vaccine based on mRNA technology has also demonstrated that not only highly effective and safe vaccines can be produced based on this technology, but that mRNA technology also enables faster product development and shorter production cycles than conventional vaccine technologies. In the fall of 2022, we were able to successfully bring a bivalent vaccine adapted to Omicron variants BA.4 and BA.5 to regulatory approval. The lessons learned, including how to rapidly manufacture and adapt our vaccine to new viral variants, will now be leveraged for additional disease areas and product candidates. Currently, we have three commercial products: our COVID-19 vaccine COMIRNATY (BNT162b2) and the two Omicron-adapted vaccines BA.1 and BA.4/5. The ongoing further development of the COVID-19 vaccine with respect to the Omicron variant and potential future viral variants offers us the opportunity to continue to be the leading provider of COVID-19 vaccines in the future, together with our partner Pfizer. In late 2022, we also initiated a Phase 1 clinical trial with Pfizer of our combination influenza and COVID-19 vaccine, also based on mRNA technology. The combination vaccine offers the possibility to treat two severe respiratory diseases with only one vaccine.

In oncology, we explore and exploit novel targets and target combinations. Our goal is to extend the benefits of cancer immunotherapies to patient populations that currently cannot benefit from effective therapies. To increase the potential efficacy of our immunotherapies, we develop drug candidates that are precisely targeted. By combining agents with synergistic mechanisms of action, such as the combination of our FixVac immunotherapy (CARVac) with our novel CAR-T therapies, we aim to increase drug activity and counteract resistance mechanisms.

We believe we are well positioned to develop the next generation of immunotherapies that have the potential to transform treatment paradigms for therapies against cancer, infectious diseases and other serious conditions, and to significantly improve clinical outcomes for patients.

Production

For the production of the COVID-19 vaccine, we have established a global supply chain and production network in the years 2020 to 2022 in addition to the expansion of internal production capacities, in particular through the acquisition of the plant in Marburg. In 2023 and subsequent years, we will work at full speed to build or lease the laboratories, production facilities and office space needed for the company's further expansion, as well as to further expand the partner network.

Since the beginning of 2023, another production facility has been in operation in Marburg. In this facility, we produce plasmids for our clinical trials. In addition, the commissioning of a commercial production facility for plasmid DNA is planned for the end of 2023. With the establishment of our own plasmid DNA production, we have the opportunity to manufacture starting materials for mRNA- and cell-based drugs more flexibly and autonomously. In Mainz, the semi-automation of processes within the iNeST (individualized neoantigen-specific immunotherapy) program led to faster production of individualized mRNA cancer vaccines for clinical use.

We also plan to build our own fully integrated mRNA manufacturing sites in Asia and Africa, with capacities to produce hundreds of millions of doses of various mRNA-based vaccines. Our plans in Asia include the construction of a fully integrated mRNA manufacturing facility in Singapore and our first regional headquarters for Southeast Asia. The state-of-the-art manufacturing facility is expected to be fully operational by mid-2024. The facility will be integrated into the company's global manufacturing network and is an important building block for supplying the Asian region with our COVID-19 vaccine and other future products in oncology and infectious diseases. Using a novel approach, we have also developed turnkey mRNA production facilities based on a containerized solution called "BioNTainer", enabling scalable vaccine production. Our first BioNTainers have already been completed in Europe in the form of

several shipping containers, subjected to quality testing, prepared for onward transport and arrived in Kigali, Rwanda in March. The production facility under construction there will be the centerpiece in a decentralized and robust end-to-end production network in Africa. Plans call for additional BioNTainers to be shipped to Senegal and possibly South Africa. Vaccines produced in Africa in the future will be destined for people in African Union countries.

Our steadily growing global production capacities and our global COVID-19 vaccine supply chain and manufacturing network open up opportunities for us to provide people around the world with fast and easy access to state-of-the-art medicines and therapies. In addition, the increasing digitalization and automation of business processes, supported by effective process management, creates opportunities for us to create additional value and increase efficiency.

Commercialization

In the past year, we transformed ourselves from a pharmaceutical start-up into a globally operating, profitable and fully integrated biotechnology company thanks to the successful production and commercialization of our COVID-19 vaccine. The financial resources gained in 2022 put us in a good position to accelerate the expansion of our portfolio in the field of oncology and to develop further therapeutic areas and sales markets. In this way, we aim to become a leader in the fast-growing immunotherapies market in the coming years. With the commercial team created in 2020 and the establishment of two sales companies in Germany and Turkey, we are creating the necessary conditions to be able to independently market future products worldwide and thus significantly reduce our dependence on partners.

We are also building a digital commercial ecosystem to enable even better interaction with the company's stakeholders, including a personalized customer journey, a sales performance program, and a smart learning platform.

In the future, we will continue to seize the opportunity to expand our own expertise with promising complementary technologies, such as those in the context of artificial intelligence (AI) or machine learning (ML), and to strengthen production capacities through targeted acquisitions and investments in other companies. The planned acquisition of InstaDeep Ltd, headquartered in London, UK, announced in January 2023, is expected to strengthen our pioneering role in the field of AI-based drug discovery, design and development. In this context, the increased attention on our company due to the successful development and production of a COVID-19 vaccine, as well as its commercialization, also provides an opportunity to enter into new partnerships with leading global companies, foundations and academic research institutions for the development and commercialization of additional products. In early 2023, we announced a planned strategic partnership with the United Kingdom government with the aim of making mRNA-based personalized cancer therapies available to patients in clinical trials or as approved treatments in the future. Among other things, a research and development center is to be established in Cambridge for this purpose.

Team and corporate culture

Behind the great successes of the past three years are our employees, who now number over 4,600. Added to this is a management team consisting of renowned scientists, experienced entrepreneurs and the biotechnology investors who support us. In order to continue our successful development, it is of great importance for us to attract the best minds to the company in the future.

Both the Management Board and the Supervisory Board see the maintenance of our corporate culture, exemplified by "Project Lightspeed", which has led to the rapid and successful development of our COVID-19 vaccine, as a fundamental part of our strategy to manage our expected future organizational growth. A "Culture Campus" we created brings together employees from a wide range of disciplines to work together to further develop the culture based on the founding team's vision.

Based on a data-driven process, the Group has identified key factors in our corporate culture: a strong sense of purpose, a focus on fostering contributions, and responsiveness. Scientific rigor, innovation and passion drive us. We foster self-confidence in our employees, give them the ambition they need to be pioneers and push boundaries, and also take the time to celebrate our own successes. Cohesion is an important part of our culture, which focuses on collaboration, teamwork and a learning culture that views both successes and failures as opportunities for growth. Despite our significant growth, we strive to remain adaptable, which is critical to innovation, efficiency and identifying opportunities and possibilities. Finally, we remain responsible, acting with integrity and making decisions based on sustainability, our values and scientific data.

The Culture Campus also addresses the leadership principles that have made us successful and anchors them in our corporate culture for continued successful development. An onboarding concept, consisting among other things of a company-wide buddy program and introductory events, was launched for new employees with the aim of remaining a close-knit and networked community despite strong growth. Furthermore, cultural ambassadors have been established to support and promote the development of our corporate culture and to form and act as cross-functional networks. In 2022, a company-wide Culture Campus dialog focused on the shared vision and mission was held for the first time. This involved reflecting on roles at both the individual and team level and identifying potential for improvement.

Thanks to our high profile in Germany and a corporate culture developed in close exchange with employees from all disciplines, we have the opportunity to become a globally attractive employer for the best talent in both the scientific and administrative fields.

5 Corporate governance statement pursuant to section 315d in conjunction with section 289f HGB

5.1 Declaration on the Corporate Governance Code pursuant to section 161 of the German Stock Corporation Act (AktG)

The German Stock Corporation Act (AktG) requires the Management Board and Supervisory Board of German companies listed on a stock exchange regulated and supervised by a state-recognized body to issue an annual declaration either (i) stating that the recommendations of the Corporate Governance Code ("Code") have been complied with or (ii) listing the recommendations with which the Company has not complied and explaining the reasons for the deviation from the recommendations of the Corporate Governance Code (Declaration of Conformity). There is no obligation to comply with the recommendations or suggestions of the Corporate Governance Code. A company listed in this sense is also obliged to state in this annual declaration whether it intends to comply with the recommendations or to list the recommendations with which it does not intend to comply in the future. This declaration is to be made publicly available online.

If the company changes its policy with regard to certain recommendations between these annual statements, it must disclose this fact and explain the reasons for the deviation from the recommendations. Non-compliance with the suggestions also contained in the Corporate Governance Code in addition to the recommendations does not have to be disclosed.

Our Board of Management and Supervisory Board have dealt in detail with the recommendations of the Corporate Governance Code and on March 20, 2023 adopted the following Declaration of Conformity pursuant to Section 161 para. 1 of the German Stock Corporation Act (AktG), which is issued in accordance with the Code in conjunction with the Corporate Governance Declaration pursuant to section 315d in conjunction with section 289f of the German Commercial Code (HGB)

BioNTech SE has complied and will continue to comply with all recommendations of the German Corporate Governance Code ("Code") as amended on April 28, 2022, with the exception of the points mentioned below.

- According to Section B.1 of the Code, the Supervisory Board shall pay attention to diversity in the composition of the Management Board. On May 4, 2020, the Supervisory Board of the Company set the target for the proportion of women on the Management Board at 25%. Mr. Jens Holstein was appointed to the Management Board as Chief Financial Officer effective July 1, 2021. In the run-up to Mr. Holstein's appointment, extensive selection processes took place with several female and male candidates. As a result, Mr. Holstein was appointed on the basis of his expertise, his many years of experience and his profile as Chief Financial Officer, as he was the most suitable candidate for the position of Chief Financial Officer compared with all the other male and female candidates and was the best fit for the Company. In the past year, individual contracts of Management Board members were renewed without appointing a new Management Board member. This was done after careful consideration and discussion and, in the view of the Supervisory Board, was in the best interests of the Company. On March 8, 2023, the Supervisory Board again dealt with the proportion of women on the Management Board and set the target at 25%. The deadline by which this target figure is to be achieved was set at December 31, 2025. The Supervisory Board is working on the newly set targets regarding diversity on the Management Board and will continue to take these into account in the future.
- According to Section C.1 of the Code, the Supervisory Board shall pay attention to diversity in its composition, among other things. The Supervisory Board was expanded in fiscal year 2022. Prof. Anja Morawietz, Ph.D. and Prof. Rudolf Staudigl, Ph.D. were elected to the Supervisory Board by the Annual General Meeting. As a result, the targeted quota of women on the Supervisory Board, which was to be 25%

by December 31, 2022, was not achieved. In preparation for the election proposals for the 2022 Annual General Meeting, a large number of female and male candidates were interviewed. By the time the invitation to the Annual General Meeting was published, two female candidates had been shortlisted. In order to cover the required competence profile as well as possible, the Supervisory Board decided, after intensive deliberations and taking into account the interests of the Company, to propose Prof. Rudolf Staudigl, Ph.D. for election as a further member of the Supervisory Board in addition to Prof. Anja Morawietz, Ph.D. On March 8, 2023, the Supervisory Board again addressed the proportion of women on the Supervisory Board and set the target at 25%. The deadline by which this target is to be achieved was set at December 31, 2025. The issue of diversity is of central importance to the Supervisory Board and the Company and is to be given particular consideration in the upcoming Supervisory Board elections.

- According to Section C.7 of the Code, it is recommended that more than half of the members of the Supervisory Board should be independent of the Company and its Management Board. Accordingly, a Supervisory Board member is independent of the Company and its Management Board if he or she has no personal or business relationship with the Company or its Management Board that could give rise to a material conflict of interest that is not merely temporary. In assessing independence, the length of service on the Supervisory Board is to be taken into account, among other factors. Despite the fact that three of the six members of the Supervisory Board have been on the Supervisory Board for longer than the period recommended by the Code, all members of the Supervisory Board are considered to be independent. The Supervisory Board considers it advantageous and essential for the company to maintain the knowledge and experience currently available on the Board. This includes many years of knowledge of the Company and its industry, as well as extensive specialist knowledge in the fields of finance, economics, science and the capital market, which is particularly important in view of the Company's current steady global growth and transformation. Due to their long-standing relationship with the Company and their existing economic independence from the Company, as well as the absence of other concerns that could give rise to potential conflicts of interest, the length of service of the three Supervisory Board members Mr. Helmut Jeggle, Mr. Michael Motschmann and Prof. Christoph Huber, M.D. does not conflict with their respective independence. (cf. Section C.8 of the Code)

5.2 Composition and Working Procedures of the Management Board, Supervisory Board and Committees

Dual organ structure

We are a European stock corporation with limited liability (Societas Europaea or SE), which has its registered office in Germany. We have opted for a two-tier SE structure. Our corporate bodies are therefore the Management Board, the Supervisory Board and the Annual General Meeting. The Management Board and Supervisory Board are completely separate from each other and no member of the Management Board can also be a member of the Supervisory Board.

Our Management Board manages the day-to-day business of the Company on its own responsibility in accordance with applicable laws, the Articles of Association and the Rules of Procedure adopted by the Supervisory Board, and represents us in transactions with third parties.

The main task of the Supervisory Board is to supervise the Management Board. The Supervisory Board is also responsible for appointing and dismissing members of the Management Board, representing us in transactions between a current or former Management Board member, and granting approvals for significant matters.

Our Management Board and Supervisory Board manage their areas of responsibility (separation of powers) and are solely responsible for them; therefore, neither body may make decisions that fall under the responsibility of the other body according to applicable law, the Articles of Association or the Rules of Procedure. The members of both bodies are bound to loyalty and diligence. In performing their duties, they are obliged to observe the duties of care of a prudent and conscientious businessman. If they fail to comply with the relevant duties of care, they may be held liable to us.

In performing their duties, the members of both boards must take into account a wide range of considerations in their decisions, including the interests of shareholders, employees, creditors and - to a limited extent - the public, while safeguarding the rights of our shareholders to equal treatment. In addition, the Board of Management is responsible for implementing an internal monitoring system for risk management.

Our Supervisory Board has extensive monitoring duties. To ensure that the Supervisory Board is able to perform these functions properly, our Management Board must, among other things, report regularly to our Supervisory Board on current business activities and future business planning (including financial, investment and personnel planning). In addition, our Supervisory Board or one of its members is entitled to request special reports from the Management Board at any time on all matters concerning the Company, our legal and business relationships with affiliated companies, and all business transactions and matters at these affiliated companies that may have a material effect on the situation.

Under German law, our shareholders generally have no direct recourse against the members of our Management Board or the members of our Supervisory Board if they have breached their duty of loyalty and care towards us. Apart from cases where we are unable to fulfill our obligations to third parties, tortious conduct towards board members or other special circumstances, only we have the right to assert claims for damages against the members of our two boards.

We may only waive these claims for damages or settle these claims if at least three years have passed since a claim arose in connection with a breach of duty and if our shareholders approve the waiver or settlement at a shareholders' meeting by a simple majority of the votes cast, provided that no shareholders holding a total of one-tenth or more of our share capital object to the waiver or settlement and have their objection formally entered in the minutes of the meeting.

5.2.1 Supervisory Board

Under German law, the Supervisory Board must consist of at least three members, although a company's Articles of Association may provide for a higher number. The Supervisory Board currently consists of six members. As BioNTech is not subject to co-determination, the members of the Supervisory Board are elected by the Annual General Meeting in accordance with the provisions of the SE Regulation and the German Stock Corporation Act.

The following table contains the names and functions of the current members of the Supervisory Board, their age as of December 31, 2022, their term of office (which expires on the day of the Annual General Meeting of the relevant year), their main occupation and other relevant supervisory board mandates outside BioNTech:

Name (function)	Age	Expiration of the mandate	Principal occupation (other relevant supervisory board mandates)
Helmut Jeggle (Chairman of the Supervisory Board)	52	2026	Managing Partner of Salvia GmbH and entrepreneurial venture capital investor (Supervisory Board member 4SC AG, AiCuris AG, AFFiRiS AG, APK AG and Tonies SE)
Ulrich Wandschneider, Ph.D. (Vice Chairman of the Supervisory Board)	61	2023	Managing Director of beebusy capital GmbH and independent consultant for companies in the life science and healthcare sector
Prof. Christoph Huber, M.D. (Member of the Supervisory Board)	78	2023	Professor Emeritus of the Johannes Gutenberg University Mainz (Vice Chairman of the Supervisory Board Tirol Kliniken GmbH)
Prof. Anja Morawietz, Ph.D. (Supervisory Board member since June 2022)	45	2026	Certified Public Accountant and Management Consultant, Professor of External Accounting and General Business Administration at the Nuremberg University of Applied Sciences Georg Simon Ohm
Michael Motschmann (Member of the Supervisory Board)	65	2023	Member of the Management Board and Head of Investments of MIG Capital AG (Member of the Supervisory Boards of AFFiRiS AG, APK AG, HMW-Emissionshaus AG and HMW-Innovations AG)
Prof. Rudolf Staudigl, Ph.D. (Supervisory Board member since June 2022)	68	2026	Independent consultant (member of the Supervisory Board of TÜV Süd Aktiengesellschaft, member of the Supervisory Board of Groz-Beckert KG (Deputy Chairman))

The business address of the members of the Supervisory Board is the same as the business address of BioNTech: An der Goldgrube 12, D-55131 Mainz, Germany.

The competence profile of the Supervisory Board members is as follows:

Qualification/ Name (Function)	Helmut Jeggle (Chairman of the Supervisory Board)	Ulrich Wand-schneider, Ph.D. (Vice Chairman of the Supervisory Board)	Prof. Christoph Huber. M.D.(Member of the Supervisory Board)	Prof. Anja Morawietz, Ph.D. (Member of the Supervisory Board since June 2022)	Michael Motschmann (Member of the Supervisory Board)	Prof. Rudolf Staudigl, Ph.D. (Member of the Supervisory Board since June 2022)
(Biotech) industry experience	x	x	x		x	x
(Biotech) industry Sales and marketing	x	x				
Management		x				
Innovation, research and development		x	x			
Accounting, auditing and controlling (including sustainability reporting)	x	x		x	x	x
Compliance, Internal Controls and Risk Management		x		x	x	x
Human Resources		x	x		x	x
Digitalization	x	x		x	x	
International experience / relevant markets	x	x	x	x	x	x
CSR/ Sustainability		x		x		
Elected to the Supervisory Board of the Company for the first time	2008	2018	2008	2022	2008	2022
End of term	2026	2023	2023	2026	2023	2026
Independence	x	x	x	x	x	x
Year of birth	1970	1961	1944	1977	1957	1954
Gender	m	m	m	w	m	m

German law does not require that the majority of Supervisory Board members be independent, and neither the Articles of Association nor the Rules of Procedure of the Supervisory Board provide otherwise. In the opinion of the Supervisory Board, an appropriate number of shareholder representatives on the Supervisory Board (i.e., the entire Supervisory Board) are independent if the Supervisory Board has two independent members. In addition to Ulrich Wandschneider, Ph.D., Prof. Anja Morawietz, Ph.D. and Prof. Rudolf Staudigl, Ph.D., the Supervisory Board considers Helmut Jeggle, Michael Motschmann and Prof. Christoph Huber, M.D. to be independent notwithstanding the fact that they will soon have served on the Supervisory Board for a period of more than 14 years. As stated in the Declaration of Conformity published by the Company on March 20, 2023, pursuant to Section 161 para. 1 of the German Stock Corporation Act (AktG), which is issued in accordance with the Code in connection with the declaration on corporate governance pursuant to Section 315d in conjunction with Section 289f of the German Commercial Code (HGB). §

Section 289f of the German Commercial Code (HGB), the length of service of the three named Supervisory Board members does not prevent them from being independent. The Rules of Procedure of our Supervisory Board stipulate that the Supervisory Board should include an independent member with expertise in the fields of accounting, internal control processes and auditing. Ulrich Wandschneider, Ph.D., Prof. Anja Morawietz, Ph.D. and Prof. Rudolf Staudigl, Ph.D. fulfill this role.

Under European law, a member of the Supervisory Board of a SE may be elected for a maximum term to be specified in the Articles of Association, which may not exceed six years. A re-election, including a repeated re-election, is permissible. The general meeting of shareholders may determine a shorter than normal term of office for individual or all members of the supervisory board and, subject to statutory restrictions, determine different start and end dates for the term of office of the members of the supervisory board. Our Articles of Association provide for a term of office of approximately five years, depending on the date of the Annual General Meeting of Shareholders in the year in which the term of office of the member concerned expires.

The Annual General Meeting may elect one or more substitute members at the same time as electing the members of the Supervisory Board. The substitute members replace members who leave the Supervisory Board and take their place for the remainder of the respective term of office. Currently, no substitute members have been elected or proposed for election.

Members of our Supervisory Board may be removed at any time during their term of office by a resolution of the Annual General Meeting adopted by at least a simple majority of the votes cast. In addition, any member of our Supervisory Board may resign from office at any time by giving one month's notice to the Management Board - or with immediate effect if there is good cause.

Our Supervisory Board elects a Chairman and a Vice Chairman from among its members. The Deputy Chairman exercises the rights and duties of the Chairman if the Chairman is unable to do so. The members of the Supervisory Board elected Helmut Jeggle as Chairman and Ulrich Wandschneider, Ph.D. as Deputy Chairman, each for the duration of their membership of the Supervisory Board.

The Supervisory Board meets at least twice per calendar half-year. Our Articles of Association provide that the Supervisory Board constitutes a quorum if at least three of its members participate in the vote. Members of the Supervisory Board are deemed to be present if they participate in the meeting by telephone or via other (electronic) means of communication (including video conferencing) or if their written vote is cast by another member. In addition, the Articles of Association allow resolutions to be adopted by telephone or by other (electronic) means of communication (including video conferencing).

The resolutions of our Supervisory Board are adopted by a simple majority of the votes cast, unless otherwise required by law, the Articles of Association or the Rules of Procedure of our Supervisory Board. In the event of a tie, the Chairman of the Supervisory Board has the casting vote. Our Supervisory Board may not make management decisions, but in accordance with European and German law and in addition to its responsibilities under the Articles of Association, it has determined that certain matters require its prior consent, including:

- entering into certain large transactions;
- establishing or holding interests in companies (other than wholly-owned subsidiaries) or disposing of interests in companies (other than a sale of JPT);
- the issue of shares from authorized capital, unless the shares are issued as part of a redemption of stock appreciation rights; and
- the acquisition of treasury shares for consideration.

The compensation of the members of the Supervisory Board is described in the Remuneration Report, which will be prepared for the financial year 2022 in accordance with the requirements of Section 162 AktG and published on the website.

Each member of the Supervisory Board shall disclose to the Supervisory Board any conflicts of interest, in particular those that may arise as a result of a consultancy or board function with customers, suppliers, lenders or other third parties. Material and not merely temporary conflicts of interest in the person of a Supervisory Board member shall result in that member resigning from office. Our Supervisory Board also takes appropriate measures to limit, prevent or

resolve conflicts of interest in accordance with applicable legal provisions and the Company's Conflicts of Interest Policy.

Our Supervisory Board carried out a self-assessment for the fiscal year 2022. It covered all key aspects of the Supervisory Board's work, including its committees, its composition, its competence profile, its main topics, and its relationship with the Management Board. The results of the self-assessment have already been evaluated and will subsequently be presented to the Supervisory Board. According to the self-assessment, the Supervisory Board, its committees and the Management Board continue to work professionally and cooperatively. No fundamental need for change was identified.

Functioning of the Supervisory Board

Decisions are generally made by our full Supervisory Board, but decisions on specific matters may be delegated to committees of our Supervisory Board to the extent permitted by law. The Chairman, or in his absence the Vice Chairman, chairs the meetings of the Supervisory Board and determines the order in which agenda items are dealt with, the type and order of voting, and any adjournment of discussion and resolution on individual agenda items after due consideration of the circumstances. Our Supervisory Board may designate other types of measures as requiring its approval.

In addition, each member of the Supervisory Board is obliged to fulfill his duties and responsibilities personally, and these duties and responsibilities cannot be generally and permanently delegated to third parties. However, the Supervisory Board and its committees have the right to appoint independent experts to review and analyze specific matters as part of its control and monitoring duties under applicable European and German law. We would bear the costs of such independent experts appointed by the Supervisory Board or one of its committees.

Pursuant to Section 107 para. 3 of the German Stock Corporation Act (AktG), the Supervisory Board may form committees from among its members and entrust them with the performance of specific tasks. The tasks, powers and procedures of the committees are determined by the Supervisory Board. To the extent permitted by law, important powers of the Supervisory Board may also be delegated to committees.

By resolution, the Supervisory Board has established an Audit Committee, a Compensation, Nomination and Corporate Governance Committee and a Capital Markets Committee. The table below shows the members of the Audit Committee, the Compensation, Nomination and Corporate Governance Committee and the Capital Markets Committee appointed until the end of the 2022 financial year.

Committee name	Members until December 31, 2022
Audit Committee	Ulrich Wandschneider, Ph.D. (Chairman), Prof. Christoph Huber, M.D. and Michael Motschmann
Compensation, Nominating and Corporate Governance Committee	Michael Motschmann (Chairman), Prof. Christoph Huber, M.D. and Ulrich Wandschneider, Ph.D.
Capital Markets Committee	Helmut Jeggle (Chairman) and Michael Motschmann

As of January 1, 2023, the members of the Audit Committee, the Compensation, Nomination and Corporate Governance Committee and the Capital Markets Committee have been reassigned as shown in the table below.

Committee name	Members since January 01, 2023
Audit Committee	Prof. Anja Morawietz, Ph.D. (Chair), Ulrich Wandschneider, Ph.D. and Prof. Rudolf Staudigl, Ph.D.
Compensation, Nominating and Corporate Governance Committee	Michael Motschmann (Chairman), Prof. Christoph Huber, M.D. and Prof. Rudolf Staudigl, Ph.D.
Capital Markets Committee	Helmut Jeggle (Chairman), Prof. Anja Morawietz, Ph.D. and Michael Motschmann

Audit Committee

In fiscal 2022, our Audit Committee consisted of Ulrich Wandschneider, Ph.D. (Chairman), Prof. Christoph Huber, M.D. and Michael Motschmann. Since January 1, 2023, our Audit Committee has consisted of Prof. Anja Morawietz, Ph.D. (Chair), Ulrich Wandschneider, Ph.D. and Prof. Rudolf Staudigl, Ph.D. The Audit Committee assists the Supervisory Board in monitoring the accuracy and integrity of the financial statements, the accounting and financial

reporting processes and audits, the effective functioning of the internal control system, the risk management system, compliance with legal and regulatory requirements, the qualification and independence of the independent auditor, the performance of the independent auditor and the effective functioning of the internal audit functions and, subject to certain limitations, makes and implements appropriate decisions on behalf of the Supervisory Board. The duties and responsibilities of the Audit Committee in fulfilling its purpose include:

- Issuance of a recommendation by the Audit Committee to the Supervisory Board regarding the nomination of the auditor;
- Engagement of the audit engagement and the compensation, retention and oversight of the independent auditor;
- Assessment of the independent auditor's qualifications, independence and quality of performance;
- Review and pre-approve audit and non-audit services to be provided by the independent auditor;
- Review and discuss with the independent auditor and management the annual audit plan and applicable critical accounting policies and practices;
- Discussion and, if necessary, determination of further focal points of the audit;
- Review and discuss with the independent auditor and management the adequacy and effectiveness of internal accounting controls and critical accounting policies;
- Review and discuss the results of the annual audit with the independent auditor and management;
- Audit of non-financial reporting;
- Reviewing the effectiveness of the compliance management system;
- Review and discuss all quarterly or annual earnings releases with the independent auditor and management;
- Review of all related party transactions and ongoing review and monitoring of potential conflict of interest situations for compliance with policies and procedures; and
- Oversee procedures for the receipt, retention, and treatment of complaints received regarding accounting, internal accounting controls, or auditing matters.

Within the limits of applicable European and German law, the Audit Committee shall have such means and authority as are appropriate to fulfill its duties and responsibilities, including the authority to select, retain, terminate and approve fees and other terms of engagement for special or independent consultants, auditors or other experts and advisors as it deems necessary or appropriate to fulfill its duties and responsibilities, without seeking the approval of the Management Board or the Supervisory Board.

In addition, Prof. Anja Morawietz, Ph.D. as Chairwoman of the Audit Committee, Prof. Rudolf Staudigl, Ph.D. and Ulrich Wandschneider, Ph.D. have the special knowledge and experience required by the German Corporate Governance Code in the field of accounting and expertise in the field of auditing. In the area of accounting, this includes in particular knowledge and experience in the application of accounting principles and internal control and risk management systems, and in the area of auditing, special knowledge and experience in the auditing of financial statements. These skills are also possessed by Michael Motschmann, who, along with Ulrich Wandschneider, Ph.D. and Prof. Christoph Huber, M.D., was a member of the Audit Committee until December 31, 2022. In addition, Ulrich Wandschneider, Ph.D. and Prof. Anja Morawietz, Ph.D. have knowledge of sustainability reporting and its auditing.

Compensation, Nominating and Corporate Governance Committee

In fiscal year 2022, our Compensation, Nomination and Corporate Governance Committee consisted of Michael Motschmann (Chairman), Prof. Christoph Huber, M.D., and Ulrich Wandschneider, Ph.D.. Since January 1, 2023, our Compensation, Nomination and Corporate Governance Committee has consisted of Michael Motschmann (Chairman), Prof. Christoph Huber, M.D., and Prof. Rudolf Staudigl, Ph.D. To fulfill its mission, the Compensation, Nomination and Corporate Governance Committee has, among others, the following duties and responsibilities:

- Preparation and discussion of guidelines in connection with the compensation of the members of the Board of Management;

- Reviewing and monitoring corporate goals and objectives for Management Board compensation, including evaluating the performance of Management Board members against these objectives and proposing compensation to the Supervisory Board based on these evaluations;
- Review all equity-based compensation plans and arrangements and make recommendations to the Supervisory Board regarding such plans;
- Support in the identification and recruitment of candidates to fill positions on the Management Board and Supervisory Board;
- Consideration of all corporate governance issues and development of appropriate recommendations for the Supervisory Board and
- Monitoring the evaluation of the Supervisory Board and reporting on its performance and effectiveness.

Capital Markets Committee

In fiscal year 2022, our Capital Markets Committee consisted of Helmut Jeggle (Chairman) and Michael Motschmann. Since January 1, 2023, our Capital Markets Committee has consisted of Helmut Jeggle (Chairman), Michael Motschmann and Prof. Anja Morawietz, Ph.D. The Capital Markets Committee advises the Supervisory Board and makes recommendations on matters relating to capital measures and takeover, merger and acquisition activities. Responsibilities include the following:

- Overseeing the Company's capital structure and fundraising activities, including the preparation and execution of initial public offerings and equity offerings; and
- Monitoring the company's activities in connection with takeovers, mergers and acquisitions.

5.2.2 Management Board

Our Management Board consists of at least two members. Our Supervisory Board determines the exact number of members of the Management Board. According to the Articles of Association, the Supervisory Board may also appoint a Chairman or a Spokesperson of the Management Board. Prof. Ugur Sahin, M.D., has been appointed Chairman of the Management Board.

Name	Age	Expiration of the mandate	Position (main responsibilities)
Prof. Ugur Sahin, M.D.	57	2026	Chief Executive Officer (Research and Development, Scientific Collaborations, Patent Filing, Quality Assurance, and Project Management)
Jens Holstein	59	2025	Chief Financial Officer (Finance, Human Resources, Risk Management and Purchasing)
Sean Marett	57	2024	Chief Business Officer and Chief Commercial Officer (Business Development, Alliance Management, Marketing and Sales, Legal and Intellectual Property)
Sierk Poetting, Ph.D.	49	2026	Chief Operating Officer (Production, IT, Laboratories and Infrastructure, and Internal Communications)
Ryan Richardson	43	2026	Chief Strategy Officer (Corporate Strategy, Capital Market Responsibility and Investor Relations)
Prof. Özlem Türeci, M.D.	55	2025	Chief Medical Officer (Clinical Development, Regulatory and Medical Affairs)

The members of our Management Board are appointed by the Supervisory Board for a term of up to five years. Upon expiry of their term of office, they are entitled to reappointment or renewal, including repeated reappointment and renewal, in each case for up to a further five years. Under certain circumstances, such as a serious breach of duty or a vote of no confidence by shareholders at an Annual General Meeting, a member of the Management Board may be removed by our Supervisory Board before the end of his or her term of office.

The members of our Management Board conduct the day-to-day business in accordance with applicable laws, the Articles of Association and the Rules of Procedure for the Management Board adopted by the Supervisory Board. They are generally responsible for the management of the company and for handling day-to-day business relations with third parties, the internal organization of the business, and communication with shareholders.

A member of the Management Board of an SE governed by German law may not deal with or vote on matters relating to proposals, agreements or contractual arrangements between him or her and the Company, and a member of our management board may be liable to us if he or she has a material interest in a contractual arrangement between us and a third party that is not disclosed to and approved by our Supervisory Board.

The Rules of Procedure for our Management Board provide that certain matters require a resolution by the entire Management Board, in addition to those transactions for which a resolution by the entire Management Board is required by law or by the Articles of Association. In particular, the entire Management Board decides on, among other things:

- the budget for the following year, which must be submitted to the Supervisory Board by the Management Board by December 20 of each year;
- reporting to the Supervisory Board;
- all measures and transactions requiring the approval of the Supervisory Board;
- all measures and transactions relating to a business area that is of extraordinary importance or involves an extraordinary economic risk;
- the addition of new business units or the discontinuation of existing ones;
- the acquisition or sale of investments or holdings, and
- certain large transactions.

The compensation of the members of the Management Board is described in the remuneration report, which will be prepared for the financial year 2022 in accordance with the requirements of Section 162 AktG and published on the website.

5.3 Targets for the composition of the Management Board pursuant to Section 76 para. 4 AktG and the Supervisory Board pursuant to Section 111 para. 5 AktG and diversity concept

Our social aspirations in our core business are complemented by good corporate governance. In this context, the composition of the Management Board and Supervisory Board as well as long-term succession planning must be appropriately adapted to the needs of the company. In addition to the professional and personal qualifications of the members of the Management Board and Supervisory Board, we take diversity and the appropriate participation of women into account in the composition of both bodies. We also pay attention to a balanced age structure to ensure long-term succession planning and have set the maximum age of Management Board members at 70 and Supervisory Board members at 80. The Management Board and Supervisory Board are of the opinion that the current composition takes full account of the objectives thus defined for the composition of these bodies.

On May 4, 2020, the Supervisory Board set the target for the proportion of women on the Management Board at 25% and on the Supervisory Board at 25% in accordance with Section 111 para. 5 AktG. The deadline by which this target is to be achieved was set at December 31, 2022. On March 8, 2023, the Supervisory Board again addressed the proportion of women on the Board of Management and the Supervisory Board and set the target at 25% in each case. The deadline by which this target is to be achieved was set at December 31, 2025.

In addition, the Supervisory Board has developed a competence profile for the entire Board. The competence profile takes into account, among others, the following areas: general (biotech) industry experience, experience in sales and marketing, management, innovation, research and development, accounting, auditing and controlling (including sustainability reporting), compliance, internal controls and risk management, human resources, digitalization, international experience/relevant markets, and CSR/sustainability. When making appointments to the full Board, the Supervisory Board always strives to fill out this competence profile.

In our Management Board, which currently consists of six members, Prof. Özlem Türeci, M.D. holds the position of Chief Medical Officer. Thus, the current female quota of the Management Board remains at 17%. The composition of our Management Board has remained unchanged since the appointment of Jens Holstein as Chief Financial Officer during the 2021 financial year. During the 2022 financial year, several Management Board contracts were newly

concluded with the current Management Board members in order to maintain a stable structure and expertise on the Management Board. The reappointment of the individual Management Board members was made after considering all aspects relevant to the Company and is in the best interests of the Company in terms of continuity and a sustainable and long-term focus. There was no addition of a further female member by the end of the period on December 31, 2022, which is why the target set of achieving a 25% share of women on the Management Board by December 31, 2022 was missed. The topic of diversity on the Management Board is nevertheless a focus and is to be given greater consideration in the future.

Prof. Anja Morawietz, Ph.D. has been a member of our Supervisory Board, which also currently consists of six members, since 2022. This means that the current female quota of the Supervisory Board is 17%, which means that the target of 25% was not achieved. The Supervisory Board endeavored to achieve the target figure by expanding the Supervisory Board by two members. Up to the end, two female candidates were shortlisted. In order to cover the required competence profile as well as possible, the Supervisory Board decided after intensive deliberations to propose Prof. Rudolf Staudigl, Ph.D. for election as an additional member of the Supervisory Board alongside Prof. Anja Morawietz, Ph.D. The issue of diversity is of central importance to us and is to be given particular consideration in the Supervisory Board elections due next year.

In accordance with Section 76 para. 4 of the German Stock Corporation Act (AktG), the Management Board also resolved on April 29, 2020 to set a target for women in management positions. The share of women in the top management level below the Board of Management and the second top management level below the Board of Management is to be at least 30% in each case. The respective target figure is to be achieved by December 31, 2022 at the latest. On March 8, 2023, the Management Board again addressed the issue and set the target figure for women in management positions in the top and second-tier management levels below the Management Board at 30%. The deadline by which this target is to be achieved in both management levels was set at December 31, 2025.

As of December 31, 2022, a total of 38% (previous year: 43%) of the members of the top management level below the BioNTech Management Board are women. At the second highest management level below the Management Board, 40% (previous year: 52%) of the positions at BioNTech are held by women as of December 31, 2022. Thus, the target figures were achieved in both the 2021 and 2022 financial years.

5.4 Integrity and ethics

Compliance & Business Ethics

BioNTech has implemented a fully-fledged Compliance & Ethics Program consisting of three typical compliance program elements: prevention, detection and response.

Prevention

The Compliance & Business Ethics department makes all applicable policies and guidelines as well as a number of relevant tools available to employees via the BioNTech Best Practices (BxP) Hub platform. The BxP Hub is also used for digital training (e-learnings, online videos, etc.). Furthermore, employees can register potential conflicts of interest and received as well as awarded gifts and invitations from external parties in this platform. Interactions with the healthcare system are also documented there. The Compliance & Business Ethics department ensures the prevention of compliance risks by proactively communicating with employees and providing advice on all risky business relationships.

Reveal

Continuous monitoring and audits enable risks to be identified at an early stage and addressed by the Compliance & Business Ethics department. Monitoring and audits therefore not only mean looking for errors and violations, but also holistically examining the areas in which compliance processes can be improved. Of course, the Compliance & Business Ethics department also offers employees the opportunity to report violations and risks of any kind through the "Contact Point for Ethics Protection" in the BxP Hub - anonymously and without negative consequences.

Reaction

In cases of suspicion, the Compliance & Business Ethics department conducts internal investigations. If breaches of the rules are identified, they are analyzed for any procedural weaknesses in order to rectify them. Disciplinary measures are initiated in the event of serious violations.

Resources for the further development and implementation of the compliance program were significantly increased in 2022. For example, the number of employees in the Compliance & Business Ethics team increased by five colleagues in 2022. In addition, three teams have been created. This is to ensure that the Compliance & Business Ethics department can cope with the growing organization and that potential new risks can be adequately addressed. Overall responsibility for the compliance program lies with the Management Board. The Audit Committee receives regular reports on the functioning of the compliance program.

In addition to the core tasks carried out by the Compliance & Business Ethics department, the company has established a Compliance Advisory Committee (CAC) composed of senior executives from various functions such as Quality Assurance, Legal, Finance, Controlling and Operations to address potential compliance risks in a concerted and cross-functional manner. The CAC reviews and discusses all new policies to ensure cross-functional alignment.

Code of Business Conduct & Ethics

The Code of Conduct applies to all members of the Supervisory Board, members of the Management Board, managing directors of group companies, and employees of BioNTech and is accessible online at www.biontech.de. It is considered the fundamental basis for conduct when performing activities for/on behalf of BioNTech. It provides an overview of the general requirements reflecting compliance with laws, regulations and BioNTech internal policies. It covers, among others, human rights, anti-discrimination, patient safety, data protection, occupational safety, anti-corruption and fair competition. The Code is communicated to all BioNTech employees and all employees are required to sign to understand and comply. If an employee violates the Code of Conduct, this may result in a range of disciplinary consequences up to and including termination of employment.

Conflict of interest policy

BioNTech has adopted a Conflicts of Interest Policy that sets forth the procedures by which the Company manages potential and actual conflicts of interest. According to the Conflicts of Interest Policy (Policy), which applies to all members of the Supervisory Board, members of the Management Board, managing directors of BioNTech's group companies and employees of the Company, any actual, potential or perceived conflict of interest must be disclosed in the BxP Hub mentioned above. If the conflict is of a transactional nature and involves a member of the Management Board, the Management Board or the Supervisory Board, as the case may be, decides whether to approve the transaction with the abstention of the conflicted member.

Anti-Bribery and Anti-Corruption (ABAC) Policy

BioNTech is committed to eliminating all forms of corruption, including extortion and bribery. By signing the UN Global Compact in March 2020, BioNTech has underlined these principles.

The company has an Anti-Bribery and Anti-Corruption Policy ABAC; employees are required to read and sign the ABAC policy. In addition, ABAC clauses are part of any contract entered into with high risk business partners (sales intermediaries, third parties acting on behalf of BioNTech). For BioNTech, bribery - no matter by whom, at what level, in what organization - is never acceptable.

In addition, the Company has implemented a third-party due diligence process that addresses potential ABAC risks. Based on certain criteria, high-risk third parties are screened for potential risks. Once the third-party due diligence process has been utilized, the Legal Department includes ABAC provisions in the relevant contracts as a standard measure to mitigate ABAC risk from third parties acting on behalf of BioNTech.

Donation Policy (Policy)

A donation strategy was developed by the Corporate Social Responsibility (CSR) team and approved directly by the Board of Directors. A Donation Policy (Policy) was approved and implemented by the Board of Directors on November 1, 2020. The Policy defines donations and the approval process for donations made by BioNTech. Donations must be within the scope of the defined donation strategy and policy and are individually reviewed and approved by the company's Corporate Social Responsibility (CSR) department and the Compliance Advisory Committee.

All donations will be reviewed against the following basic requirements:

- The donation is made to a charitable or non-profit organization and not to an individual or for-profit company. Donations are not made to health care organizations.

- Donations to public hospitals or polyclinics in developing countries or countries in a humanitarian crisis are permitted in exceptional cases after a prior compliance review.
- There are no parallel (business) relationships between BioNTech and the organization receiving the donation.
- BioNTech may not receive parallel services from the receiving organization, including affiliated organizations.
- The donation does not serve the personal interests of any individual.
- The donation does not directly/specifically serve BioNTech's commercial interests.
- The receiving organization is properly registered or accredited under applicable local laws to receive donations.

6 Remuneration report

The remuneration report for the 2022 financial year will be prepared in accordance with the requirements of section 162 of the German Stock Corporation Act (AktG) and published on the website at www.biontech.de.

7 Non-financial report

Since our founding, we have focused on our vision of harnessing the power of the immune system to combat human diseases and major health burdens for which no or inadequate medical therapies are currently available. This approach has led to a robust and diversified product pipeline in oncology and infectious diseases.

We support the United Nations Sustainable Development Goals (SDGs). Our research and development work makes an important contribution to the third United Nations Sustainable Development Goal (SDG 3): to ensure healthy lives and promote well-being at all ages. Subgoals 3.3 (infectious diseases) and 3.b (medicine and vaccines) are of particular importance to us. This is in line with our core commitment to global social responsibility. At the heart of our business practices is the goal of ensuring that people around the globe benefit from our research and innovations. As part of this effort, we continue to focus on urgent medical needs and on fair and equitable access to new medicines.

Climate strategy

We see climate protection as a core component of our sustainability commitment. If humanity does not succeed in limiting global warming to 1.5 °C compared to pre-industrial levels, serious consequences for people and nature around the world are to be expected. We therefore support the global agreement on climate change ("Paris Climate Agreement") adopted at the 21st United Nations Climate Change Conference ("COP 21") at the end of 2015 and the UN's 13th Sustainable Development Goal (SDG) to take immediate action to address the climate crisis and its impacts.

We are addressing the climate crisis by minimizing the impact of our business activities and reducing greenhouse gas (GHG) emissions in operations and throughout the value chain. Based on the requirements of the Science Based Targets Initiative (SBTi) and after consultation with the Supervisory Board, the Management Board set binding emission reduction targets in Q1 2022. For the company's Scope 1 & 2 greenhouse gas emissions, an absolute reduction of 42% by 2030 (target: 1.9 kt CO2e) was set compared to the baseline year 2021 (3.2 kt CO2e). For Scope 3 greenhouse gas emissions, a so-called "Supplier Engagement Target" was adopted: Accordingly, the most important suppliers covering at least two-thirds of BioNTech's Scope 3 greenhouse gas emissions will be obliged to set themselves science-based short- to medium-term climate targets in accordance with the requirements of the SBTi. This Scope 3 target is to be achieved by 2026 at the latest.

To achieve these short- to medium-term science-based climate targets, BioNTech will integrate greenhouse gas emissions reduction goals into growth and investment planning, supply chain management, and ongoing operations. We recognize that this will require additional capital, operational and personnel expenditures. In September 2022, the "Energy & Sustainability Projects" (ESP) department was established under the umbrella of BioNTech's BSS site service unit to, among other things, operationally realize the decarbonization goals.

We are aware of the impact of the climate crisis on our business and incorporate this risk perspective into our holistic climate strategy. To this end, we analyzed and identified climate-related risks in fiscal 2022 based on the recommendations of the Task Force on Climate Related Financial Disclosures (TCFD). The TCFD was established by the Financial Stability Board (FSB) in 2015 and developed recommendations for managing risks and opportunities arising from climate change. In 2022, we conducted a qualitative and quantitative scenario analysis covering our entire value chain, focusing on both transition risks and physical risks. Based on the results, we have started to integrate the findings into our risk management and processes, which we will consistently continue in 2023.

Further information on our climate strategy, the targets we have set and our specific reduction measures are presented in the Sustainability Report 2022 and published on our website at www.biontech.de.

Human rights obligations

Driven by the Guiding Principles on Business and Human Rights (UN Guiding Principles) adopted by the United Nations in 2011, many National Action Plans (NAPs) for corporate human rights due diligence have been developed globally. The German federal government adopted the German NAP in 2016. This was followed by the German Law on Corporate Due Diligence to Prevent Human Rights Violations in Supply Chains (Lieferkettensorgfaltspflichtengesetz, LkSG), which came into force on January 1, 2023. BioNTech monitors the dynamic regulatory developments on human rights issues in all countries where the company and strategic suppliers are operationally active.

Based on the Universal Declaration of Human Rights and the Fundamental Principles of the International Labor Organization (ILO), BioNTech committed itself to fundamental human rights values for the first time in 2016. In a new edition of the Code of Conduct 2020, the company committed to the Universal Declaration of Human Rights, the Fundamental Principles of the International Labor Organization (ILO), the United Nations Guiding Principles on Business and Human Rights (UNG) and the ten principles of the UN Global Compact, which was signed in 2020. In 2022, BioNTech launched a gap analysis to review the measures taken to date to deal with human rights risks with a focus on the risks specified in Section 2 (2) of the LkSG. Details on BioNTech's human rights risk management in accordance with the LkSG are published in the Risk Report (section 4.2) and in the Sustainability Report 2022.

ESG Ratings

Our efforts were recognized in 2021 by the responsible investment arm of the rating agency Institutional Shareholder Services, ISS ESG (Environmental, Social, Governance): ISS ESG awarded BioNTech a "Prime" ESG rating ("C+" rating, top 10% of the industry) following the publication of the first sustainability report for fiscal 2020. In the following year 2022, the rating was improved to a "B-" rating. The "Prime" rating and the benchmark "top 10% of the industry" were confirmed.

The S&P Global Corporate Sustainability Assessment (S&P CSA) gave us an overall score of 20 out of 100 as a non-participating company in 2021 (S&P Global ESG Score). These are companies that are assessed only on the basis of publicly available information and do not actively participate in the CSA. In 2022, the overall rating score - for the first time as an actively participating company - improved to 32 points compared to the previous year.

The rating agency Morningstar Sustainalytics published an ESG risk rating for BioNTech for the first time in November 2022. A score of 22.3 ("medium risk") was achieved. In an industry comparison (pharmaceuticals), BioNTech thus ranks in the top 11%; in the sub-sector "biotechnology" in the top 7% of the companies rated by Sustainalytics.

CSR Management

Our CSR management, including the fields of action and material CSR topics, will be presented in detail in a separate Sustainability Report 2022 and made available online at www.biontech.de.

By publishing relevant and material sustainability information, we address all stakeholders and, in particular, investors with high expectations regarding the environmental, social and governance (ESG) performance of companies.

8 Events after the reporting period

A detailed description of the events after the reporting period can be found in the notes to the consolidated financial statements and the annual financial statements of BioNTech SE.

Mainz, March 27, 2023

BioNTech SE

Prof. Ugur Sahin, M.D.
Chief Executive Officer

Jens Holstein
Chief Financial Officer

Sean Marett
Chief Business Officer and Chief Commercial Officer

Sierk Poetting, Ph.D.
Chief Operating Officer

Ryan Richardson
Chief Strategy Officer

Prof. Özlem Türeci, M.D.
Chief Medical Officer