

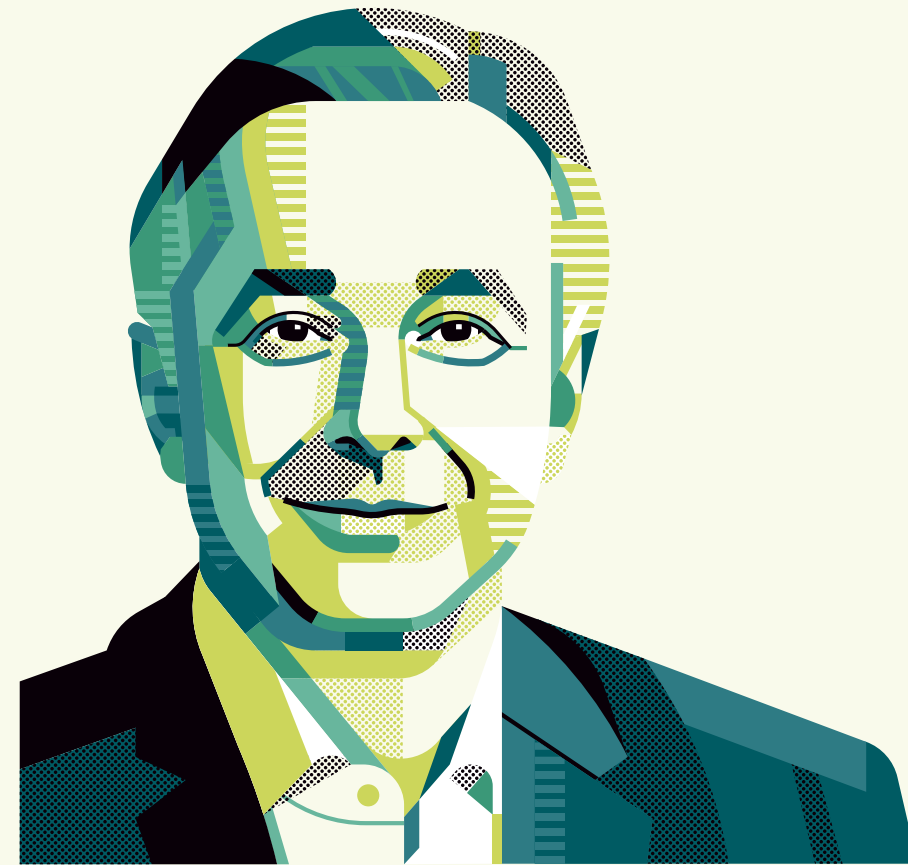
BIONTECH

**SUSTAINABILITY
REPORT 2021**

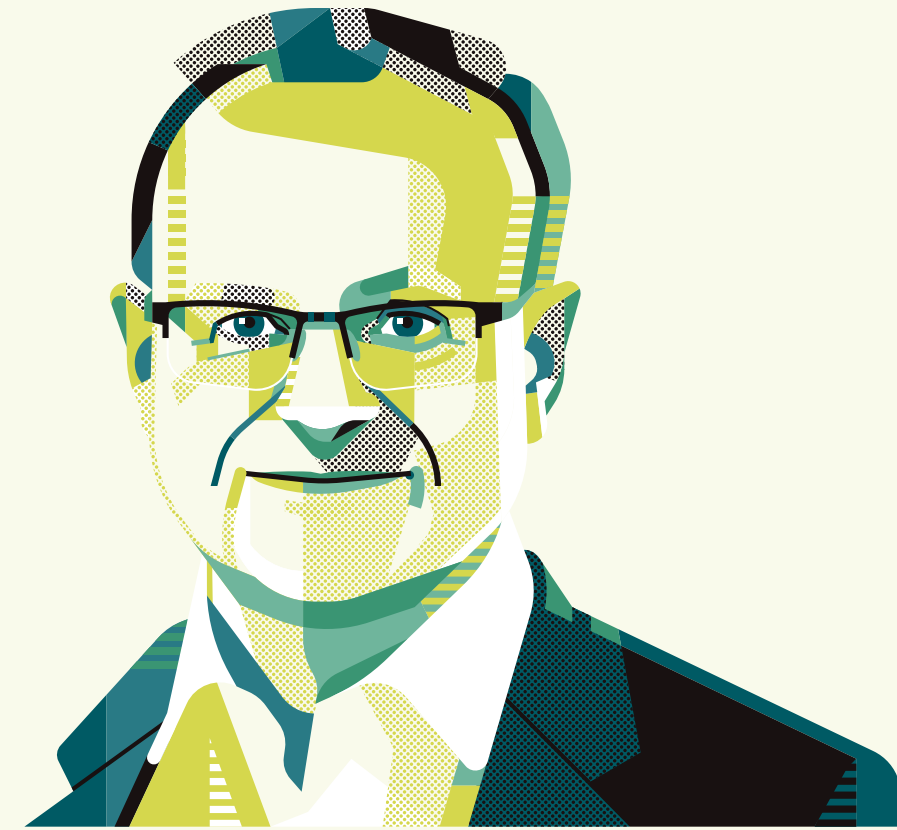




PROF. ÖZLEM TÜRECI, M.D.
Chief Medical Officer and Founder



JENS HOLSTEIN
Chief Financial Officer



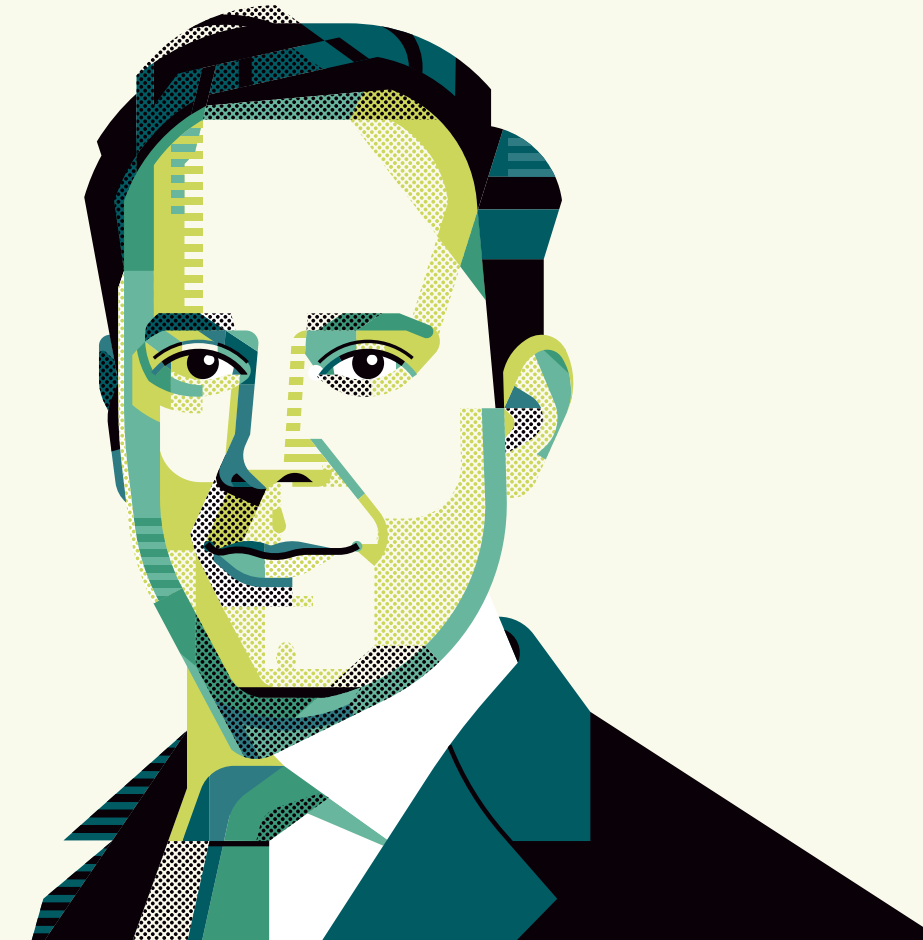
SEAN MARETT
Chief Business and Chief Commercial Officer



DR. SIERK POETTING
Chief Operating Officer



PROF. UGUR SAHIN, M.D.
Chief Executive Officer and Founder



RYAN RICHARDSON
Chief Strategy Officer

“

Our core values form the basis of everything we do: we are innovative, passionate and united. Throughout our work we are committed to being transparent, acting with integrity, protecting the environment and respecting human rights. These values form the unchanging basis of our work and, above all, our very own expectations of ourselves.

”



Our values



united



passionate



innovative

A 21st century immunotherapy powerhouse



Fully integrated
biotechnology company



Multi-platform strategy



Diversified product pipeline



Based on global social responsibility:

- Focus on high medical needs
- Democratize access to novel medicine and technological innovation in healthcare

Climate protection



On **1.5°C** pathway
(aligned with SBTi Net-Zero Standard)

Fighting against COVID-19

Authorized or approved for emergency or temporary use or granted conditional marketing authorization in

>100

countries & regions (as of 12/2021)

COVID-19 vaccine doses supplied to more than 165 countries and regions (Pfizer & BioNTech) in 2021



2.6 billion

including approximately one billion doses to low- and middle-income countries



4 billion
Combined manufacturing capacity target 2022:
(Pfizer & BioNTech)



Pledge fulfilled



40% of doses

delivered by Pfizer & BioNTech to low- and middle-income countries

Employees doing pioneering work

3,138

employees from over

43%

60 nations

of top managers are women

Total revenues 2021 financial year in €



19.0 billion

Net profit 2021 financial year in €



10.3 billion









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POSITIONING

BioNTech was founded in 2008 with the understanding that each cancer patient's tumor is unique and that each patient's treatment should be equally individualized. To turn this idea into reality, we have combined innovative research with modern technologies.

Our objective is to develop breakthrough therapies against cancer, infectious and other serious diseases.

As a next-generation immunotherapy company, we are working to clinically prove the benefits of our treatment approach. Our COVID-19 vaccine is an important milestone. We are continuously expanding our collaborations, our team and our own manufacturing capabilities to provide individualized treatments to patients around the world.

As a company with its roots in Mainz, Germany, we are accelerating the development of our diversified pipeline of next-generation immunotherapies aspiring to improve the health of people worldwide by harnessing the full potential of the immune system. This includes cancer, infectious disease, regenerative medicine as well as autoimmune diseases and allergies.





WE COULD NOT HAVE ACCOMPLISHED ALL OUR ACHIEVEMENTS WITHOUT OUR EMPLOYEES.



Dear Readers,



Our Sustainability Report 2020 – our first ever – was a milestone for us as a company. It was the first structured assessment of our corporate sustainability and responsibility performance.

A few weeks after publication, our efforts were recognized by the rating agency Institutional Shareholder Services, ISS ESG: BioNTech received a “Prime” ESG (environment, social and governance) rating for 2020 and is ranked in the top 10% of the industry by ISS. This is now our baseline target: for us, as members of the Management Board, 20% of variable compensation (STI) is linked to the achievement of ESG targets, including maintaining a prime rating from the ISS ESG rating agency.

It was a special year: our first year of full commercial production. This achievement brings robust financial results but also means greater responsibility towards our shareholders, society and our employees.

As we grow, so do the expectations and demands on our corporate governance. One of the key tasks in 2021 was to further strengthen this topic, especially in the area of compliance. Corporate governance remains at the top of our list of priorities. This includes, inter alia, the German supply chain due diligence act (Lieferkettensorgfaltspflichtengesetz) and the planned EU’s Corporate Sustainability Due Diligence.

With the commercialization of our vaccine production, the expectations of our stakeholders have also changed. We contributed to the global challenges of vaccine equity in 2021 and present our vision for democratizing access to novel medicine and technological innovations in healthcare in this sustainability report.

At the same time, our ecological footprint is growing along with our production. We therefore used the year 2021 to better understand our climate footprint deep into our value chains. Based on this data, the Management Board specified BioNTech’s climate protection targets in line with the requirements of the Science Based Targets initiative (SBTi). Our near-term targets follow a 1.5°C pathway to align with the SBTi Net-Zero Standard. The operational impact of this decision are already becoming apparent, for example, at our construction sites in Mainz and in our planning activities in Africa and on other continents.

We could not have accomplished all our achievements without our employees. We thank them for their passion and endurance, for their courage and will to overcome hurdles and obstacles, and for their strength and ability to make things happen.

People shape culture. We are deeply convinced that BioNTech’s specific corporate culture has been a key success factor over the past 14 years and will continue to be so in the future. The importance of corporate culture has led to the establishment of the “Culture Campus” in 2021, a project team within BioNTech reporting directly to senior management, that is focused on codifying, sensing, shaping, implementing, safeguarding, developing and communicating BioNTech’s corporate culture.

All this will help us to get closer to our vision day by day: harnessing the power of the immune system to develop novel therapies against cancer, infectious and other serious diseases.

Prof. Ugur Sahin, M. D.
*Chief Executive Officer
and Founder*

Prof. Özlem Türeci, M. D.
*Chief Medical Officer
and Founder*

Dr. Sierk Poetting
Chief Operating Officer

Sean Marett
*Chief Business and Chief
Commercial Officer*

Jens Holstein
Chief Financial Officer

Ryan Richardson
Chief Strategy Officer



1.0 BioNTech

Developing the next-generation immunotherapy company


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**For a better future:
We never stop developing our in-depth
understanding of the human immune system.**

4 

**GMP mRNA manufacturing facilities in
Germany, with Marburg one of the largest
mRNA manufacturing sites worldwide**

More than

1 

**billion
vaccinated people
around the world**

2022



**First modular mRNA manufacturing facility
in the African Union is expected to start in
mid-2022 and first BioNTainer expected to
arrive in Africa in the second half of 2022**

Over
17 

**clinical-stage
product candidates**



More than

30

research programs



1.0 BioNTech

1.1 BUSINESS OVERVIEW

BioNTech is a fully integrated global biotechnology company specializing in the development of novel medicines at the intersection of immunology and synthetic biology. Since its founding in 2008, the Company has focused on its vision of harnessing the power of the immune system to address human diseases with an unmet medical need as well as major health burdens. BioNTech's fully integrated model combines decades of research in immunology, translational drug discovery and development, a technology agnostic innovation engine, GMP manufacturing, and commercial capabilities to rapidly develop and commercialize potential vaccines and therapies to address a range of serious indications on a global scale.

BioNTech has built a broad toolkit covering multiple technology platforms, including a diverse range of potentially first-in-class therapeutic approaches. This includes mRNA vaccines, cell and gene therapies, targeted antibodies, small molecule immunomodulators, Ribologicals, and next-generation immunomodulators. This approach has created a robust and diversified product pipeline across infectious disease and oncology, comprising the Company's first commercial product, BNT162b2 (Comirnaty®), the first-ever approved mRNA therapy, over 17 clinical-stage product candidates, and more than 30 research programs.

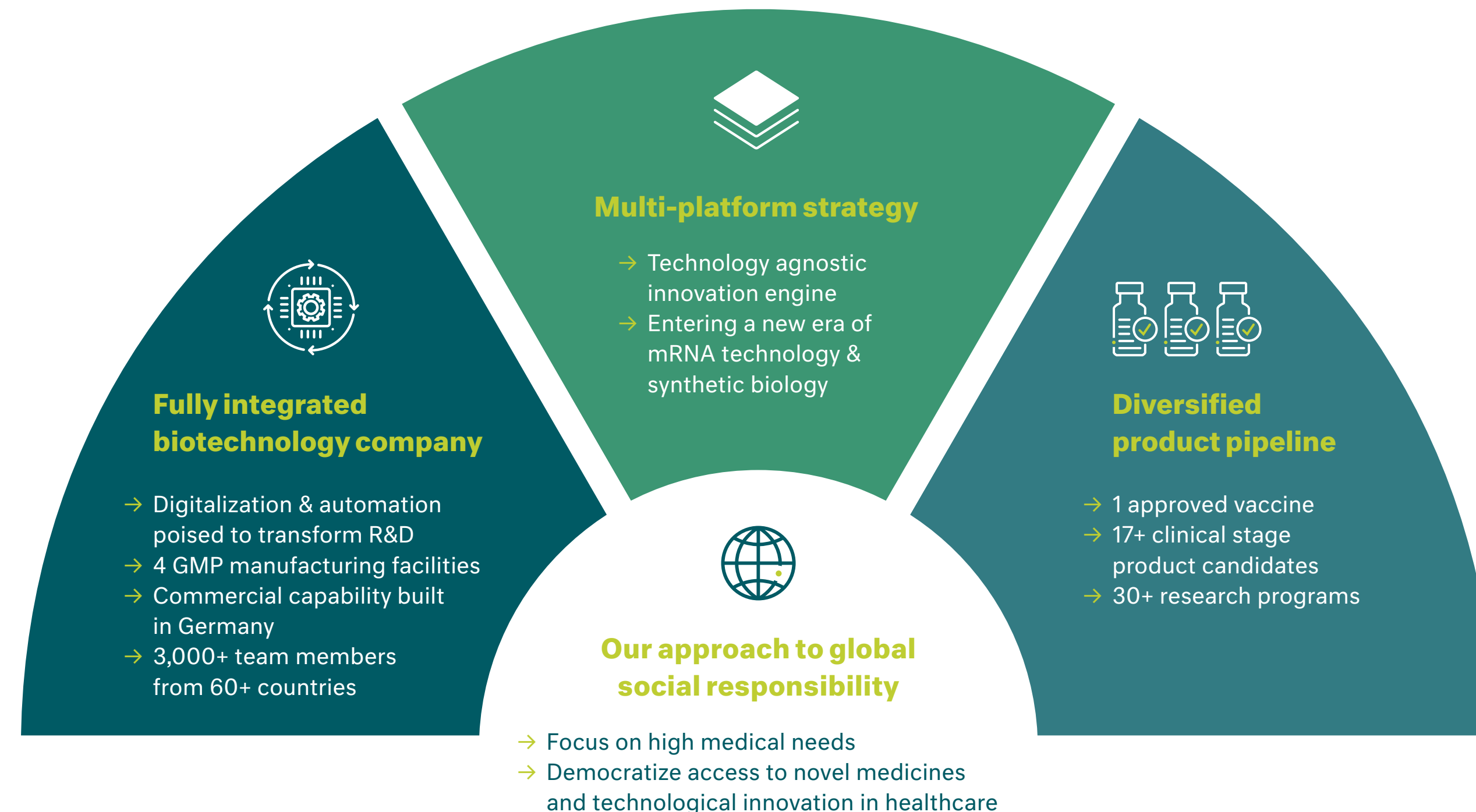
BioNTech supports the United Nations Sustainable Development Goals (SDGs). Its research and product development efforts make a relevant contribution to supporting the third United Nations Sustainable Development Goal (SDG 3): Ensuring healthy lives and promoting well-being for all people of all ages. This aligns with the Company's commitment to global social responsibility. Core to BioNTech's business practices is ensuring that people all around



HIGH MEDICAL NEEDS AND ACCESS TO INNOVATION IN HEALTHCARE.



A 21st century immunotherapy powerhouse



the globe benefit from its efforts. To accomplish this, the Company intends to maintain a focus on addressing high medical needs and democratizing access to novel medicine and technological innovation in healthcare. BioNTech believes it is well positioned to develop and commercialize the next generation of immunotherapies with the potential to transform treatment paradigms for many severe diseases and substantially improve clinical outcomes for patients.

WHAT OUR STAKEHOLDERS TELL US



BIONTECH HAS THE CHANCE TO BECOME MORE THAN JUST ANOTHER PHARMACEUTICAL COMPANY – AND STILL BE ECONOMICALLY SUCCESSFUL.



DR. MIRIAM SAAGE-MAASS

Vice Legal Director of the European Center of Constitutional and Human Rights (ECCHR)

Commercialization

BioNTech's first commercial-stage product is BNT162b2, the mRNA vaccine program to prevent COVID-19. The Company is co-developing BNT162b2 with Pfizer Inc., ("Pfizer") worldwide, excluding China, and with Shanghai Fosun Pharmaceutical (Group) Co., Ltd. ("Fosun Pharma") in China. In early 2020, as it recognized the onset of the COVID-19 pandemic as a global threat, the Company leveraged its technologies to address this global health challenge and developed BNT162b2, which became the first-ever approved mRNA-based product, and the fastest pharmaceutical product ever developed. BioNTech believes its successful development of a first-in-class COVID-19 mRNA vaccine in less than one year validates its execution capabilities, the power of its technologies, and its commitment to social responsibility.

As of February 2022, BioNTech's COVID-19 vaccine has either been authorized or approved for emergency or temporary use or granted marketing authorization in over 100 countries and regions around the world. In August 2021, the Company's COVID-19 vaccine was the first to receive full FDA approval in the United States for use in individuals aged 16 and older. In 2021, together with Pfizer, BioNTech supplied more than 2.6 billion doses of its COVID-19 vaccine to more than 165 countries and regions worldwide, including approximately 1 billion doses to low- and middle-income countries. As of the beginning of March 2022, BioNTech and Pfizer have delivered more than 3.1 billion doses to more than 170 countries and regions, including approximately 1.3 billion doses to low- and middle-income countries.

In 2021, together with Pfizer, BioNTech supplied more than 2.6 billion doses of its COVID-19 vaccine to more than 165 countries and regions worldwide.

Through its oncology clinical programs, BioNTech has already treated over 900 patients across more than 20 solid tumor types. Currently, the Company has five ongoing randomized Phase 2 clinical trials, four of which started in 2021. It has also initiated four first-in-human clinical trials in diverse therapeutic programs in 2021 and another first-in-human trial in January 2022.

In addition to various data read-outs for the BNT162b2 program, there were several clinical data updates in the oncology programs in 2021, including presentations at major medical conferences. At the Society for Immunotherapy of Cancer (SITC) Annual Meeting 2021, the Company presented Phase 1 clinical data updates across six programs and four therapeutic platforms in two oral presentations and five poster presentations. Data was also presented for BioNTech's FixVac (BNT111 and BNT112), CAR-T cell immunotherapy (BNT211), bispecific antibodies (BNT311 and BNT312, partnered with Genmab), and small molecule immunomodulator (BNT411) programs. For all six programs, the data presented demonstrated favorable safety profiles and promising signs of clinical activity. At the European Society for Medical Oncology Immuno-Oncology (ESMO-IO) Congress 2021, the Company presented an additional data update for its CAR-T cell therapy BNT211, which showed further evidence of clinical activity in most patients.

The broad success of BioNTech's COVID-19 vaccine has opened the door to a new era of mRNA technology and synthetic biology. The Company's position today reflects a uniquely rich pipeline including multiple first-in-class approaches positioning it to re-imagine the therapeutic landscape, enable personalized care, and drive superior patient outcomes across diseases. The current capital allocation will allow BioNTech to drive a multi-platform strategy and deliver a fully integrated global biotechnology company.

In the area of R&D, the focus is on developing next-generation COVID-19 vaccines to maintain leadership and pandemic preparedness. BioNTech plans to invest extensively to build out its global



development organization, bringing in talent with the clinical and regulatory expertise needed to rapidly advance its diversified clinical pipeline. Clinical development is also being accelerated, strengthening the mid- and late-stage oncology presence, and broadening the pipeline through the start of new programs in oncology and infectious diseases. The Company is also taking the opportunity to diversify its therapeutic area footprint, which will enable it to fully leverage the potential of all technology platforms across autoimmune diseases, inflammatory diseases, cardiovascular disease, neurodegenerative diseases, and regenerative medicines.

M&A and business development efforts focus on strengthening technology platforms and digital capabilities through select strategic partnerships and acquisitions. Enhancing capabilities through complementary acquisitions, technologies, infrastructure, and manufacturing is also planned.

To support BioNTech's future trajectory, growing the organization and expanding the team are of utmost importance. The Company is on the way to developing its global footprint in key regions, including Europe, the United States, Asia and Africa. Investing in manufacturing capabilities for key technologies and deploying its pandemic response capabilities also remain priorities for BioNTech.

Legal Structure

BioNTech SE was founded in 2008 as a spin-off from the Johannes Gutenberg University Mainz. It is the parent company of the BioNTech Group and has its registered office in Mainz, Germany. At the end of 2021, the BioNTech Group consisted of 29 wholly owned and indirect subsidiaries at six different locations in Germany and at locations in the United States, Austria, China, Turkey, Singapore, and the United Kingdom.

In this sustainability report, "BioNTech," the "Group," the "Company", "we", "us", and "our" refer to BioNTech SE and its subsidiaries, except where the context otherwise requires. Significant changes in the

Group structure to highlight in this sustainability report are as the following:

- In March 2021, BioNTech Turkey Tıbbi Ürünler Ve Klinik Araştırma Ticaret Anonim Şirketi, which translates into English as BioNTech Turkey Pharmaceutical Products and Clinical Trials Trading JSC, Istanbul, Turkey, was founded and is a wholly owned consolidated subsidiary of BioNTech SE.
- In July 2021, BioNTech (Shanghai) Pharmaceuticals Co., Ltd., China, was founded and is a wholly owned subsidiary of BioNTech Pharmaceuticals Asia Pacific Pte. Ltd., a wholly owned consolidated subsidiary of BioNTech SE.
- In September 2021, BioNTech Services Marburg GmbH, Marburg, Germany, was founded and is a wholly owned consolidated subsidiary of BioNTech SE. In December 2021, the entity was renamed to BioNTech Innovation and Services Marburg GmbH.
- In October 2021, BioNTech SE acquired PhagoMed Biopharma GmbH, Vienna, Austria, (and was subsequently renamed to BioNTech R&D (Austria) GmbH).

The full list of subsidiaries and parent companies, including any entity with significant influence over the Group, as well as comprehensive documentation on changes to the Group structure, are published in the Annual Report on Form 20-F for the 2021 financial year, which is accessible on the [website of BioNTech](#).

Organizational Structure

The Company has a dual management system: The Management Board, as the managing body, currently has six members and is appointed and supervised by the Supervisory Board, which also approves major business decisions. The Supervisory Board is elected by the Annual General Meeting and currently consists of four members. A more detailed overview of board practices is provided in Chapter [4.1 Responsible Governance](#).

As of the December 31, 2021 reporting date, there were 3,138 employees, of which 1,378 were employed by BioNTech SE (December 31, 2020: 2,047 of which 623 were employed by BioNTech SE) and an annual average of 2,694 employees, of which 1,181 were employed by BioNTech SE (previous year: 1,624 of which 536 were employed by BioNTech SE).

1.2 INNOVATION AND R&D

As a research-based biotech company, systematic innovation management guarantees the economic sustainability of BioNTech's business model. That is why the Company invests in innovation whenever technological barriers may stand in the way of clinical success. BioNTech is technology agnostic and strives to use the technology that is best suited for the purpose at hand.

The deep understanding of the human immune system represents the core of the Group's innovations and resulted in the creation of four complementary drug classes:

- mRNA therapeutics
- Cell therapies
- Next-generation antibodies
- Small molecule immunomodulators

Complementing these drug classes, BioNTech has key competencies in bioinformatics. On this basis, a proprietary machine-learning algorithm has been developed to tailor immunotherapy approaches to individual patients or patient groups.

For further details on innovation, R&D and the current pipeline of preclinical programs and clinical product candidates, please refer to BioNTech's Corporate Presentation. Regular updates on these topics are published on the [website of BioNTech](#).



1.3 2021 FINANCIAL RESULTS

Since December 2020, BioNTech's COVID-19 vaccine has been fully approved, granted conditional marketing authorization, or approved or authorized for emergency or temporary use in over 100 countries and regions worldwide, which resulted in recognition of revenues from the commercial sale of pharmaceutical products for the first time. Consequently, from the year ended December 31, 2020, to the year ended December 31, 2021, BioNTech's total revenues from contracts with customers increased by €18,494.4 million from €482.3 million to €18,976.7 million.

For more details on the Company's 2021 financial results, please refer to BioNTech's 2021 Annual Report on Form 20-F filed with the SEC on March 30, 2022, which is available on the website of SEC and on the [website of BioNTech](#).

1.4 ECONOMIC CONTRIBUTIONS

BioNTech's strong revenue growth in the 2021 fiscal year was driven by the Company's first full year of commercial production. According to estimates by the Kiel Institute for the World Economy (IfW), BioNTech's licensing income for its COVID-19 vaccine accounted for around 0.5% of Germany's GDP in 2021. Excluding this income, GDP would have grown only 2.2% rather than the actual 2.7%. Turning from the national to the local level, BioNTech's economic impact is noticeable at its production sites as well.

Mainz

The city of Mainz, for example, where the Company is headquartered, had been in debt since the mid-1980s and, in 2020, was sitting on debt of €1.3 billion. As a result of the corporate tax revenues generated from BioNTech, the city will see a budget surplus for 2021 of €1.09 billion instead of the planned loss of €36 million. The city

plans to use its historically high tax revenue to advance Mainz's path to becoming a world-leading location for biotechnology, cancer and aging research. To achieve this, it has designated 30 hectares of land for facilities for technology development and basic research in cancer and aging. In addition, a company is to be founded as early as April 2022 to institute a central point of contact for other businesses. The state of Rhineland-Palatinate and the city of Mainz also plan to expand laboratory space at the TechnologieZentrumMainz. Altogether, 5,000 new jobs over the next ten years are expected.

Marburg

In the city of Marburg, where BioNTech started full vaccine production at the beginning of 2021, corporate tax revenues rose by around €370 million in 2021, of which €300 million are attributed to BioNTech. Marburg intends to transfer 70% of the revenue to the Marburg-Biedenkopf district in the wider Marburg region and to the state of Hesse. The city itself will retain around 30%, or €171 million, and use the funds to make the city more socially, ecologically and economically sustainable by investing, among others, in energy-saving refurbishments and expanding local public transportation (for further information see the [Website of the city of Marburg](#)).

Idar-Oberstein

The city of Idar-Oberstein – the site of BioNTech's Innovative Manufacturing Services unit – like many municipalities in Germany, had accumulated debt in a low three-digit million amount. In 2021, the city was able to repay a substantial portion of this debt, largely as a result of the corporate taxes levied on BioNTech's location. The city's budget draft for 2022 also foresees substantial tax revenues generated from BioNTech, amounting to a low three-digit million range. A significant portion of the revenue will also go to the Birkenfeld district in Rhineland-Palatinate, via what is known as a "district levy", which will be a benefit to the region. Idar-Oberstein expects to be debt-free in 2022 and have significant financial leeway available for municipal spending initiatives. The first measures, already

implemented in 2021, aim for a sustainable, progressive reduction in future burdens. The city also plans to use the tax revenues to strengthen Idar-Oberstein as a business location for the long-term, particularly through a cut in corporate taxes for all companies. The backlog of investments to be made in municipal infrastructure will also be reduced, especially in the area of schools and daycare centers. Generally, the funds are to be targeted at sustainable developments, for example, to achieve climate protection goals.

1.5 DONATION & SPONSORING DATA

In line with the formal BioNTech donation approval process, the Company made donations and donations in kind to the following organizations in the 2021 financial year:

- Pharmacists Without Borders Germany:
€ 3,000
- Vocational Training School Idar-Oberstein (Harald-Fissler-Schule):
56 PC monitors (donation in kind)
- German Alliance for Disaster Relief (Aktionsbündnis Katastrophenhilfe):
€ 1,000,000
- College of Trier (Environmental Campus Birkenfeld):
€ 2,272



2.0 Our Responsibility

Democratize Access to Novel Medicine and Technological Innovation in Healthcare

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For the people:
We aim to improve healthcare worldwide through innovative medicines and technologies.

Strive to develop affordable cancer medicines: BioNTech aspires to bring mRNA-based cancer immunotherapies to the African continent once they are approved.



Primary Sustainable Development Goal



SDG 3

We aim to deliver in total

2 billion



doses of the COVID-19 vaccine to low- and middle-income countries by end of 2022



2.0 Our Responsibility

2.1 VACCINE EQUITY: A GLOBAL CHALLENGE

As of mid-March 2022, there were over 480 million confirmed cases of COVID-19 globally reported to the World Health Organization (WHO), and more than six million deaths. At the same time, a total of 11 billion vaccine doses were administered worldwide (see also [website of WHO](#)).

Scientists around the world have risen to this global challenge and developed well-tolerated and effective COVID-19 vaccines in record time. But the virus spread faster than COVID-19 vaccines could be delivered. As of March 2022, none of the COVID-19 quantitative and time-bound vaccination targets set by WHO has been achieved. In Africa, for example, approximately 80% of the population is still unvaccinated against COVID-19.

The reasons are multiple, and there is a need to systematically address the challenges. As diverse as the causes of the vaccine equity challenge are, so will be the strategies and solutions to address it. BioNTech is committed to contributing to a broader, multi-stakeholder approach with a wide range of governments, regulatory authorities, organizations, industry partners and other stakeholders to execute on the solutions needed.

2.2 BIONTECH'S CONTRIBUTION TO VACCINE EQUITY

An important approach taken by BioNTech was to significantly scale-up reliable production capacities at an early stage. The Company's manufacturing facility in Marburg, Germany, which was acquired from Novartis Manufacturing GmbH as announced on October 31, 2020, is one of the largest mRNA vaccine manufacturing sites worldwide. This facility reached an annual capacity of up to one billion doses of mRNA vaccine in 2021.

In 2021, BioNTech and Pfizer delivered over 2.6 billion doses of the COVID-19 vaccine to more than 165 countries and regions around the world. The companies fulfilled their pledge of delivering 40% of the doses to low- and middle-income countries (LMICs), with one billion doses of the Pfizer-BioNTech COVID-19 vaccine delivered to LMICs.

For 2022, both partners expect to have the combined capacity to manufacture up to four billion doses. At least one billion of those doses are planned to be delivered to low- and middle-income countries in 2022. The doses represent a portion of Pfizer and BioNTech's announced pledge to provide two billion doses to low- and middle-income countries between 2021 and 2022. This pledge includes an agreement to supply 500 million doses to the U.S. Government at a not-for-profit price, which the government will further donate to the African Union and the COVAX 92 Advanced Market Commitment (AMC) countries, as well as a direct supply agreement to supply 40 million doses to the COVAX facility (see also [website of BioNTech](#)).

The companies have developed a global COVID-19 vaccine supply chain and manufacturing network with over 20 key partners, which now spans four continents and includes more than 20 manufacturing facilities. The aim is to expand BioNTech's COVID-19 manufacturing network worldwide and to establish and increase BioNTech's pandemic response capability globally.

Part of this network is planned to include fill and finish capacities in South Africa for COVID-19 vaccine distribution in the African Union and Brazil for distribution within Latin America. Letters of intent have been signed with The Biovac Institute (Pty) Ltd., a Cape Town-based, South African biopharmaceutical company with expected fill and finish capacities of up to 100 million doses annually in 2022 (see also [website of BioNTech](#)) and, with the biopharmaceutical company Eurofarma Laboratórios SA, a Brazilian vaccine manufacturer. At full operational capacity, the annual production of Eurofarma is expected to exceed 100 million finished COVID-19 doses (see also [website of BioNTech](#)).

BioNTech plans to establish a fully integrated mRNA manufacturing facility in Singapore with support from the Singapore Economic Development Board (EDB). The facility, with a planned annual capacity of approximately several hundred million doses, will aim to provide regional and global supply capacity, as well as a rapid response capability for South East Asia to address potential pandemic threats. BioNTech anticipates the site to be operational as early as 2023.

The BioNTech manufacturing capabilities and collaborations planned and outlined support the objective of a BioNTech global vaccine manufacturing network and BioNTech's ability to respond to pandemics.



BioNTech's Vision: Democratize Access to Novel Medicine and Technological Innovation in Healthcare

In advancing medicines and technological innovation, BioNTech's aim to improve the quality of life for people worldwide has always been a driving force. As part of this effort, BioNTech continues to focus on high unmet medical needs – especially the development of cancer therapies and vaccines against some of the world's most common infectious diseases – and affordable access to innovations in healthcare.

Such access could be an intermediate step on the way to a new common understanding: Vaccines produced regionally, on highly flexible medical and technological solution platforms, and with an appropriate level of democratic participation to address a region's most urgent diseases. BioNTech describes this vision as a democratization of access to novel medicine and technological innovation in healthcare.

The Company's four guiding principles – transparency, integrity, respect for the environment and human rights – and the UN Sustainable Development Goals (SDGs) guide BioNTech in the implementation of this vision.

To achieve this vision, BioNTech is focusing on three fields of action:

Address Diseases with High Unmet Medical Needs

BioNTech invests in mRNA vaccine programs to address diseases that continue to have a major impact on global population health and developing countries. Next to the COVID-19 vaccine, the Company is developing multiple infectious disease programs in indications with a high unmet medical need, such as malaria, tuberculosis, HSV-2, and HIV. WHO estimates that more than 200 million cases of malaria are detected every year, with young children being most affected as they have no immunity against the pathogen (see also [website of WHO](#)). WHO also estimates that 10 million people contracted tuberculosis in 2020 (see also [website of WHO](#)). An estimated 491 million people aged 15–49 (13%) worldwide have HSV-2

infection (see also [website of WHO](#)). In the case of HIV, WHO estimates that more than 36 million people are living with HIV today – two-thirds of whom are located in the WHO African region (see also [website of WHO](#)).

BioNTech is aligned in its efforts with WHO and the Africa Centers for Disease Control and Prevention. The European Community and other organizations have also participated in the early planning stages, offering their support in identifying and establishing the necessary infrastructure. Since 2019, the Company has partnered with the Bill and Melinda Gates Foundation to develop HIV and tuberculosis research programs for people and provide affordable access to vaccines for low- and middle-income countries.

Strive to Develop Affordable Cancer Medicines

BioNTech aspires to bring mRNA-based cancer immunotherapies to the African continent once they are approved. This potential solution is highly relevant, as low- and middle-income countries (LMICs) are disproportionately affected by cancer cases and deaths. By 2040, over 70% of cancer deaths are expected to occur in LMICs (see also [website of WHO](#)).

BioNTainer – A Sustainable, Scalable Solution for mRNA Manufacturing

On February 16, 2022, BioNTech presented the next step to improving vaccine supply. The Company introduced its approach to establishing scalable vaccine production by developing and delivering turnkey mRNA manufacturing facilities based on a container solution. At a high-level meeting at BioNTech's new manufacturing facility in Marburg, and at the invitation of the kENUP Foundation, the Company presented the container solution named "BioNTainer" in mid-February 2022.



External statements regarding BioNTech's BioNTainer Project:

"WHO is committed to working with all partners to ensure every country can access vaccines and other tools to protect the health of their populations. We can only achieve that goal through genuine cooperation on local vaccine development, production, distribution, and uptake, through the greater diversity of platforms. Collaboration on training, research, and strengthening regulatory systems will also be key for success. We welcome BioNTech's initiative to increase vaccine production in Africa as a complement to WHO's mRNA technology transfer hub in South Africa and its network of 'spokes' around the world."

Dr. Tedros Adhanom Ghebreyesus, WHO Director General

"mRNA vaccines made in Africa, for Africa, and with world-class technology. This initiative is a real trailblazer in our global fight against the pandemic. By pooling forces, the European Union and the African Union can achieve so much more for mutual benefit. Team Europe has committed one billion euros. The EU will also support Africa's ambition to build up vaccine manufacturing and regulatory capacities."

Ursula von der Leyen, President of the European Commission

"Today represents a momentous day for Mother Africa. Another step in the process towards self-reliance has been taken, and I thank the German biotechnology company, BioNTech, and the kENUP Foundation for their contribution to this end. We want to achieve self-sufficiency in vaccine production to meet future national, regional and continental needs for health security. Ghana reaffirms her determination to make this Pan-African vaccine project work and succeed."

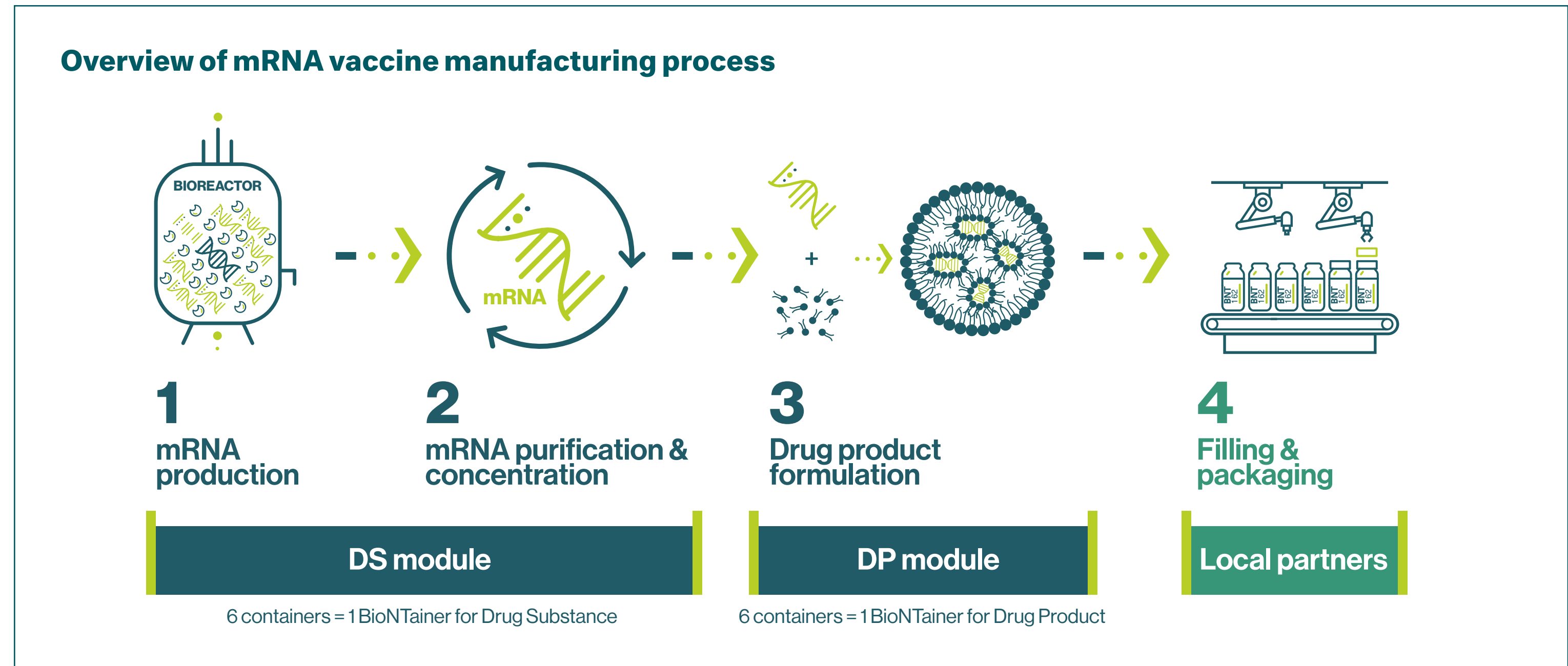
Nana Akufo-Addo, President of the Republic of Ghana



Attendees included President Macky Sall of Senegal, President Nana Akufo-Addo of Ghana, President Paul Kagame of Rwanda, Director General of the World Health Organization Tedros Adhanom Ghebreyesus, Director of the Africa Centers for Disease Control and Prevention (Africa CDC) John Nkengasong, and the Federal Minister of Economic Cooperation and Development of Germany Svenja Schulze. Together with BioNTech’s co-founders Prof. Ugur Sahin, M.D., CEO, Prof. Özlem Türeci, M.D., CMO, and Dr. Sierk Poetting, COO, there was a joint discussion on the infrastructure, regulatory and technological requirements for establishing an end-to-end manufacturing network for mRNA-based vaccines in Africa.

The manufacturing solution consists of one drug substance and one formulation module, each of which are called a BioNTainer. Every module is constructed of six ISO-sized containers. This allows for mRNA vaccine production in bulk (mRNA manufacturing and formulation), while fill-and-finish will be taken over by local partners. Each BioNTainer is a clean room that BioNTech equips with state-of-the-art manufacturing solutions. Together, two modules require 800 sqm of space and offer an estimated initial capacity of up to 50 million doses of the Pfizer-BioNTech COVID-19 vaccine each year. The BioNTainer will be equipped to manufacture a range of mRNA-based vaccines targeted to the needs of the African Union member states, such as the Pfizer-BioNTech COVID-19 vaccine and, potentially, BioNTech’s investigational malaria and tuberculosis vaccines, when they have been successfully developed, approved and authorized by regulatory authorities.

Capacity can be scaled up by adding further modules and sites to the manufacturing network on the African continent. One of the most critical parts of the manufacturing process is quality control, which includes all necessary tests for each finished vaccine batch. In partnership with local quality control testing labs, BioNTech will help to ensure the identity, composition, strength, and purity, as well as the absence of product- and process-related impurities and microbiological contamination for each produced batch.



BioNTech’s establishment of its first mRNA manufacturing facility in the African Union is expected to start in mid-2022. The first BioNTainer is projected to arrive in Africa in the second half of 2022. Manufacturing in the first BioNTainer is planned to commence approximately twelve months after the delivery of the modules to their final location in Africa. BioNTech expects to ship BioNTainers to Rwanda, Senegal, and potentially South Africa in close coordination with the respective country and the African Union. BioNTech will be responsible for the delivery and installation of the modules, while local organizations, authorities, and governments will ensure the needed infrastructure. Partners in Ghana and South Africa could support the manufacturing with fill and finish capacities.

BioNTech will work closely with local authorities to ensure compliance with the relevant regulatory procedures of the national regulatory agencies in each partner country and will coordinate, where appropriate, with the relevant continental and international agencies, including WHO, Africa CDC, the African Medicines Agency (AMA), and the African Union Development Agency (AUDA-NEPAD).

BioNTech will initially staff and operate the facilities to support the safe and rapid initiation of the production of mRNA-based vaccine doses under stringent good manufacturing processes (“GMP”) to prepare for the transfer to local partners so that they can operate independently. Vaccines manufactured in these facilities are expected to be dedicated to domestic use and exported to other member states in the African Union at a not-for-profit price.



BIONTECH DEMOCRATIZES ACCESS TO NOVEL MEDICINE AND TECHNOLOGICAL INNOVATION IN HEALTHCARE.



PROF. UGUR SAHIN, M.D.
Chief Executive Officer and Founder

Equitable access to COVID-19 vaccines is the subject of intense debate. CEO Ugur Sahin addresses critical issues and shows that BioNTech's vision – “access to novel medicine and technological innovation in healthcare” – goes beyond COVID-19 vaccines and can be an opportunity for all continents independent of their income. The SDGs remain an important reference point for BioNTech.

In Africa, approximately 80% of people have not yet received a vaccination against the COVID-19 virus. What do you think is the best way to provide fair and equitable access to vaccines and novel medicines to as many people as possible, especially in Africa?

It takes several solutions to address this problem – and we want to be part of this. That is why we are working closely with WHO, the European Union and our African partners, as well as with governments and regulators. With state-of-the-art technological advancements and our mRNA platform, we aim to help address not only COVID-19, but also indications with a high unmet medical need such as malaria, tuberculosis, HSV-2, and HIV. Our efforts also include building manufacturing capacity to ensure the vaccines meet the same highest quality standards everywhere in the world. BioNTech wants to create access to innovations that help everyone, regardless of income.

NGOs, as well as various states, are calling for a waiver of intellectual property protection for Covid-19 vaccines. Can you outline BioNTech's position?

BioNTech is committed to supporting COVID-19 vaccine equity. Patent rights have not been the limiting factor in such efforts. Rather, given the complexity of mRNA vaccine manufacturing processes, the primary impediments are often the limited availability of trained personnel, proper equipment and procedures, and robust quality assurance processes. Therefore, to address these issues, BioNTech is aiming to build local facilities in countries in need that will manufacture mRNA vaccines using the same processes and, importantly, to the same exacting quality and release standards that we have been using elsewhere. In these facilities, BioNTech will



provide the equipment, technologies, training, and support needed to achieve these outcomes.

BioNTech has been accused of “undermining WHO’s mRNA technology transfer hub in South Africa”. Can you tell us what is behind this allegation?

This is not the case, and such behavior would not be in line with our core values. We have already stated that we will not enforce our patent rights against certain parties in Africa as they work to improve access to COVID-19 mRNA vaccines on the continent during this pandemic. We see our efforts as complementary to WHO’s mRNA technology transfer hub in South Africa. In addition, we are evaluating how BioNTech could work with WHO and the transfer hub regarding staffing, training, and distribution of BioNTainers.



WE OFFER THE COVID-19 VACCINE IN AFRICA AT A NOT-FOR-PROFIT PRICE.



What is BioNTech’s objective with the BioNTainers?

We want to enable the production of mRNA vaccines where they are needed. Our objective is to have a very flexible and globally scalable solution that can be set up almost anywhere in the world as quickly as possible. When an mRNA production facility is built on a greenfield site with sufficient infrastructure, it usually takes two to three years. The conversion of an existing GMP-certified plant with trained personnel, as in Marburg, takes at least six to seven months to reach full capacity. Our BioNTainers are much more flexible. With the basic infrastructure in place, we aim to submit the formal application for production to the authorities 12 to 14 months after the project commences operation. We want to shorten this time to market even further.

What impact will this have on the price of the vaccine?

The BioNTainer solution is about providing access to innovation and, in terms of healthcare, supporting the sovereignty of the people in Africa. We and our partner Pfizer already offer the COVID-19 vaccine to low-income countries on a not-for-profit basis. As we move ahead with the development of new vaccines, we plan to evaluate the path forward for our cancer vaccines in Africa.

The reaction of the African Union and representatives of the African countries to the BioNTainer presentation was very positive. How were you able to convince the countries and their political leaders to support the BioNTainer program?

By closely involving the African Union, the Africa Medicines Agency, the Africa Centres for Disease Control and Prevention, and the country governments from the beginning. We have a common understanding with our African partners to focus on the future. BioNTainers are adaptable for future needs and cre-



THE UN SDGs ARE AN IMPORTANT POINT OF REFERENCE.



ate the opportunity to address other diseases such as malaria, tuberculosis, and HIV, if vaccines are successfully developed and approved. Finally, we have pledged to manufacture mRNA-based cancer immunotherapies on the African continent once they are approved. This effort is highly relevant, as low- and middle-income countries are disproportionately affected by cancer cases and deaths.

One final question: What role do the UN Sustainable Development Goals (SDGs) play for BioNTech?

The UN SDGs are an important point of reference for our company. Most recently, for example, we set ourselves ambitious, science-based and binding objectives for climate protection, which naturally apply to all operations worldwide.



2.4 AWARDS

BioNTech's founders and scientists received several awards in 2021 in recognition of their innovative strength, scientific achievements in the fight against the pandemic, and particularly their successful mRNA research. A selection of the awards are presented below.



The Princess of Asturias Award is a wonderful way to recognize the difference science can make for humanity. I am very grateful that we have been able to contribute to the fight against this pandemic and help so many people with our research and work.



PROF. UGUR SAHIN, M.D.
Chief Executive Officer and Founder

Princess of Asturias Award for Technical and Scientific Research

On October 27, 2021, Ugur Sahin, Özlem Türeci and Senior Vice President RNA Protein Replacement Katalin Karikó, together with their fellow scientists Drew Weissman, Philip Felgner, Derrick Rossi and Sarah Gilbert, received the Princess of Asturias Award for Technical and Scientific Research. The jury's decision was based on the extraordinary ability demonstrated by the scientists to tackle global challenges.

This award, which is also known as the "Spanish Nobel Prize", is presented by Princess Leonor and her father, King Felipe VI of Spain, annually in eight categories. One of the aims of this award is to contribute to the appreciation and promotion of all scientific, cultural and humanistic values belonging to the world heritage.



It is an honor to be among the recipients of the Princess of Asturias Award. I am deeply humbled to be considered a worthy ambassador for the cause this award represents: The improvement of life as the noblest goal of science.



PROF. ÖZLEM TÜRECI, M.D.
Chief Medical Officer and Founder

Federal Cross of Merit of the Federal Republic of Germany

On March 19, 2021, Ugur Sahin and Özlem Türeci were presented with the Federal Cross of Merit of the Federal Republic of Germany (Großes Verdienstkreuz mit Stern des Verdienstordens der Bundesrepublik Deutschland) for their outstanding scientific achievements and the development of the first approved COVID-19 vaccine. The Federal Cross of Merit is awarded for political, economic-social and intellectual achievements, as well as for all special services to the Federal Republic of Germany, such as those in the social and charitable realms. It is the only merit award in Germany and represents the highest form of recognition that the Federal Republic can bestow for services benefiting the general common good. The award ceremony at Bellevue castle – the first of the year to take place in person – was attended by the Federal President, Frank-Walter Steinmeier, and the then Federal Chancellor of Germany, Angela Merkel.





German Future Award (Stifterverband für die Deutsche Wissenschaft e.V.); initial publication: 2021.

German Future Award (Deutscher Zukunftspreis)

On November 17, 2021, Ugur Sahin, Özlem Türeci, Katalin Karikó and member of the BioNTech Supervisory Board Christoph Huber received the German Future Award (Deutscher Zukunftspreis). Each year, the acting Federal President awards the prize to individuals and organizations for their outstanding technical, engineering or scientific innovations that lead to products ready for commercialization.

The German Future Award was first awarded in 1997 by the then Federal President Roman Herzog and recognizes those innovations that are the most likely to make an important positive impact on Germany as a business center and create sustainable jobs. This award also celebrates cutting-edge research that offers real solutions for the urgent challenges facing society.

The above-mentioned scientists received this award for the development and approval of a COVID-19 vaccine in an incredibly short amount of time, as well as for the successful research and development that laid the groundwork for such an accomplishment. The jury emphasized the team's manufacturing sites and supply capacities, which have ultimately saved millions of lives. The Company's mRNA technology will pave the way for further developments in the fight against cancer and autoimmune diseases, as well as in regenerative medicine. The Federal Minister of Education and Research at the time, Anja Karliczek, congratulated the award winners after the ceremony and called BioNTech a beacon of innovation in Germany. She pointed to the Company's decades of research, which have protected millions from death and severe COVID-19 outcomes.

Selection of awards presented to individual scientists of BioNTech in 2021

- March 16 *Katalin Karikó*: **Széchenyi Prize**, Hungarian Government
- March 19 *Ugur Sahin and Özlem Türeci*: **Axel Springer Award**
- March 19 *Ugur Sahin and Özlem Türeci*: **Federal Cross of Merit of the Federal Republic of Germany**
- May 17 *Katalin Karikó*: **Wilhelm Exner Medal**, Austrian Trade Association
- June 8 *Ugur Sahin and Özlem Türeci*: **Election as Members of the European Molecular Biology Organization**
- September 6 *Katalin Karikó*: **Reichstein Medal**, Swiss Academy of Pharmaceutical Sciences
- September 7 *Ugur Sahin and Özlem Türeci*: **Eczacıbasi Medical Award**
- September 14 *Ugur Sahin, Özlem Türeci and team*: **German Founder's Award (Special Prize)**
- September 23 *Ugur Sahin and Özlem Türeci*: **Luminary Award**, Precision Medicine World Conference (PMWC)
- September 24 *Katalin Karikó*: **Lasker-DeBaakey Clinical Award**
- October 9 *Ugur Sahin and Özlem Türeci*: **Lifetime Achievement Award**, ImmunoTherapy of Cancer Conference (ITOC8)
- October 13 *Ugur Sahin and Özlem Türeci*: **Empress Theophano Prize**
- October 21 *Ugur Sahin and Özlem Türeci*: **Hall of Fame German Science**
- October 22 *Ugur Sahin and Özlem Türeci*: **SITC Medal of Honor**
- October 27 *Ugur Sahin, Özlem Türeci and Katalin Karikó*: **Princess of Asturias Award for Technical and Scientific Research**
- October 30 *Ugur Sahin and Özlem Türeci*: **Athenagoras Human Rights Award**
- November 4 *Ugur Sahin and Özlem Türeci*: **EY Honorary Award for Exceptional Scientific and Social Commitment**
- November 10 *Ugur Sahin and Özlem Türeci*: **Atlantic Council Leadership Award, Distinguished Business Leadership Award**
- November 17 *Ugur Sahin, Özlem Türeci, Christoph Huber and Katalin Karikó*: **Deutscher Zukunftspreis (German Future Award)**



3.0 CSR Management

Anchoring responsibility in the core business

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**For all stakeholders:
We are responsible not only for our business,
but also for the way we conduct this business.**

1 million euros 
to the German humanitarian
organization "Aktionsbündnis
Katastrophenhilfe"

 **Top 10%**
of all rated companies in the
pharmaceuticals and biotechnology
sector and "Prime" ESG rating by rating
agency ISS ESG (financial year 2020)

Gender diversity of the CSR Steering Board



Management Board members of the CSR Steering Board:

- Chief Medical Officer, Prof. Özlem Türeci, M.D.
- Chief Operating Officer, Dr. Sierk Poetting

Signatory of the
UN Global Compact since

**March
2020**

Signatory of the
"Charta der Vielfalt" since

**November
2018**



WHAT OUR STAKEHOLDERS TELL US

DRIVING SUSTAINABILITY FROM WITHIN



THORSTEN PINKEPANK
Director of Corporate Sustainability Relations, BASF SE

Thorsten Pinkepank has long-standing experience in CSR management and sustainability. He has been the Director of Corporate Sustainability Relations at BASF since 2010 and is a board member at Econsense and CSR Europe. From 2012 to 2017, he was a member of the GRI Stakeholder Council and recently reelected as the Chairman of the Steering Committee of the German Global Compact Network.



“Tightening political regulations and rising awareness among the wider society and financial markets are making clear that responsible corporate governance in line with the United Nations’ Sustainable Development Goals (SDGs) is no longer just nice to have. Rather, it needs to be an integral part of any corporate strategy. In addition to establishing clear responsibilities, the ability to drive an organization’s sustainability transformation from within requires not just expertise but a great deal of trust. Setting an ambitious sustainability agenda and openly discussing associated challenges can evoke resistance – yet doing so is indispensable for any company aspiring to be a leader rather than a follower in its industry’s sustainability transformation. Against this background, BASF has established an external Stakeholder Advisory Council to complement the company’s management structure and discuss critical sustainability issues with the board in a confidential setting.

It is great to see that BioNTech – with a business model directly feeding into SDG 3 “Health and Well-Being” – is willing to live up to the challenge and continue on its ambitious CSR path as the company grows. Doing so will allow BioNTech to stay on top of societal demands and legislation in the highly regulated pharmaceutical industry to match its exceptionally positive public image. In the medium-term, BioNTech’s most important task will be to integrate the expectations of governments (as the company’s most important customers), shareholders, potential investors, and society more generally. Be humble about your achievements, yet clear about the massive effort that goes into the development of vaccines and novel medicines. Stay true to your belief in innovation and what it can do for humanity, yet aware of critical questions that BioNTech and its products may face. Aspire to set new standards whilst seeking out opportunities to jointly develop sustainability solutions at industry level.”

This Stakeholder Statement does not represent the views of BioNTech and has not been influenced by BioNTech.



3.0 CSR Management

3.1 GROUP MANAGEMENT CSR

As a biotech company with research and – since the end of 2020 – commercial manufacturing, BioNTech bears responsibility not only for its business, but also for the way its business is conducted. The Company has been strategically addressing its corporate responsibility in the Corporate Social Responsibility (CSR) Team since 2019.

Overall responsibility for CSR lies with the Management Board, which is supported strategically by the CSR Steering Board and operationally by the CSR Team.

The CSR Steering Board, which meets four times a year, is responsible for the strategic management of CSR for the BioNTech Group.

In addition to BioNTech’s Chief Medical Officer, Prof. Özlem Türeci, M.D., and Chief Operating Officer (COO), Dr. Sierk Poetting, the Board includes 13 top executives who represent essential departments and views from across the Company. The CSR Steering Board engages with the relevant and material CSR issues and decides on the strategically important topics. These include the development, coordination, and monitoring of the CSR program.






The driving force behind systematically incorporating CSR into processes, corporate culture and ways of working is the CSR Team, which reports directly to the COO. It prepares analyses, decision papers and recommendations, coordinates CSR issues for the

BioNTech Group and ensures operational development and CSR reporting in cross-functional dialogue and working groups.

The operational management and implementation of all CSR relevant tasks are carried out by the respective departments and subsidiaries responsible. They are supported by the CSR Team, which is directly involved in all major CSR projects.

A full review of all CSR governance and a new materiality analysis are planned for 2022. This will enable BioNTech to steer ESG goals and ensure the success of current and future initiatives.

CSR Fields of Action¹

 <p>ACCESS TO INNOVATION³</p>	 <p>ATTRACTIVE EMPLOYER</p>	 <p>ENVIRONMENTAL PROTECTION</p>	 <p>RESPONSIBLE GOVERNANCE</p>	 <p>CORPORATE CITIZENSHIP</p>
<p>DEMOCRATIZE ACCESS TO NOVEL MEDICINE AND TECHNOLOGICAL INNOVATION IN HEALTHCARE</p>	<p>PIONEER PIPELINE Pioneer Development Equal Opportunity Safety & Health Growth & Culture</p>	<p>CLIMATE PROTECTION Pollution & Waste</p>	<p>PATIENT SAFETY PATIENT PRIVACY ANIMAL WELFARE GOVERNANCE</p>	<p>CARING FOR PATIENTS Corporate Volunteering² Donations²</p>

¹ Material topics are marked bold. ² Voluntary CSR topics outside the materiality assessment. ³ New CSR Field of Action based on the 2021/2022 stakeholder dialogs.



3.2 MATERIALITY ANALYSIS

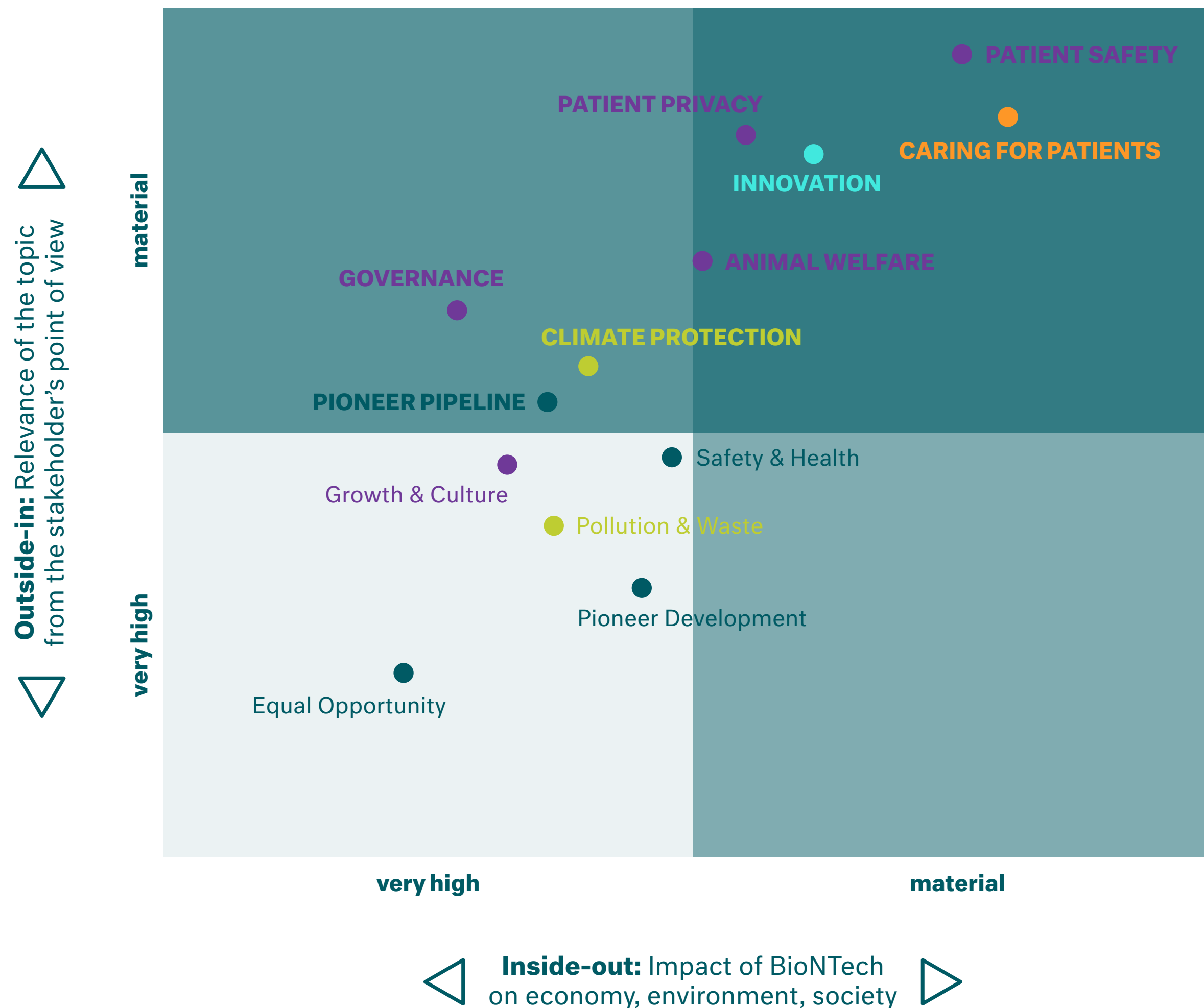
BioNTech conducted its last full-scale materiality analysis in 2019. The Company identified its material CSR topics through a multi-step and cross-functional process. First, relevant and stakeholder-oriented sustainability standards (e.g., GRI, SASB, NASDAQ ESG Reporting Guideline), as well as benchmarks (e.g., the Pharmaceutical Supply Chain Initiative PSCI, competitor benchmarks), were screened and analyzed for their relevance to BioNTech. Building on this analysis, the Company conducted structured interviews with internal members of the Management Board and top executives in Q2 2019. Starting with a comprehensive, long list of relevant CSR topics, this process allowed BioNTech to define five fields of action, encompassing a total of 13 highly relevant CSR topics. Ultimately, the Company identified eight material CSR topics by focusing on two dimensions of the Global Reporting Initiative (GRI): the significance of the stakeholder perspective (“outside-in”) and the impact of corporate actions on the economy, environment and society (“inside-out”).

All topics mentioned in the materiality matrix have a very high importance for BioNTech. They are all intensively managed and fully elaborated, except on the topic Caring for Patients (see [Chapter 3.4](#)). In prioritizing the topics, the Company assigns a higher importance to material topics in reporting and resource allocation due to their increased stakeholder relevance.

At the time of the initial materiality analysis, the development of a COVID-19 vaccine and commercial sales and profits in financial year 2020 were not anticipated. Since the emergence of both of these factors, there has been a significant change in the stakeholders’ expectations of the Company and in CSR management requirements in almost all areas of the Company.

Materiality Matrix 2019

To be reviewed in materiality analysis 2022/2023.



2021/2022 Update of Materiality Analysis

BioNTech carefully monitors changes in material topics and continues to manage and prioritize material topics according to their stakeholder relevance. In 2021/2022, the Company prepared to update its materiality analysis. Based on the conceptual and organizational preparations in 2021, 13 internationally recognized expert interviews (qualitative, half structured, approx. 60 minutes) were conducted in early 2022 on the following topics:

- **Responsible Governance:** Interviews with a Head of Corporate Governance of a major German asset manager; a professor of business management specializing in capital markets, corporate management and sustainable finance; and a senior analyst and pharma expert from a global ESG rating agency
- **Attractive Employer:** Interview with the chairperson of the Board of the “Charta der Vielfalt” (Diversity Charter), a non-profit association focused on the promotion of diversity
- **Environmental and Climate:** Interviews with experts from a European industry association, an international environmental activist and consultant; a leading international industry- and NGO-sponsored climate protection initiative
- **Human Rights & Supply Chain:** Interviews with global experts from the Pharmaceutical Supply Chain Initiative (PSCI); an independent European civil and human rights NGO; and econsense, the German sustainability forum of leading internationally active companies, of which BioNTech is a member
- **CSR Management:** Interviews with an international expert of a German multinational chemical company; a professor of organization, strategy and leadership; and an expert from a global provider of business sustainability ratings

Inclusion of Stakeholder Feedback

The interviewees were asked to identify the sustainability issues that would likely influence the Company significantly going forward and BioNTech’s greatest impact in terms of social, economic and ecological sustainability (following the concept of “double materiality”). The results of the interviews were evaluated using the qualitative approach of thematic clustering.

For each of the above-mentioned topics, BioNTech takes the most important issues, expectations and needs for action into consideration in the chapters of this sustainability report.

BioNTech will continue to use the results from the interviews as input for its strategic management in 2022 and present the key results to the COO responsible for CSR and to the CSR Steering Board.

From a double materiality perspective, the results will serve as a basis for a comprehensive materiality analysis in 2022 and pave the way for the adoption of the EU Sustainability Reporting Directive (CSRD), which will be mandatory as of 2023.

Selected stakeholder statements are presented in a summarized statement at the beginning of the chapters with the related content. They were not influenced by BioNTech and, due to the very limited materiality analysis in this report, are intended to accentuate the external perspective of the stakeholders on the thematic chapters.

Key statements and quotes from the external stakeholders interviewed by BioNTech are integrated into this report in separate boxes under the heading “What our stakeholders tell us”. An example of this can be found on the right-hand side of this page.

WHAT OUR STAKEHOLDERS TELL US

**(BIONTECH’S)
MATERIALITY HAS
BEEN COMPLETELY
TRANSFORMED BY ITS
STRONG GROWTH.
IT HAS BROUGHT NEW
ISSUES TO THE TABLE
THAT WOULD NOT HAVE
BEEN ANTICIPATED A
FEW MONTHS AGO.**

**INGO SPEICH**

Head of Sustainability & Corporate Governance at Deka Investment; Member of the Sustainable Finance Committee of the German Federal Government



3.3 CSR PROGRAM

After identifying the relevant and material topics during the materiality processes, the related measures, objectives and implementation deadlines were defined in the CSR program, initially published in the Sustainability Report 2020. By linking the materiality analysis to the CSR program, BioNTech ensures that all relevant stakeholder interests are considered.

The following CSR program provides a direct, transparent overview of the degree to which the objectives have been achieved. The program will undergo a full review and be relaunched as part of the 2022 materiality analysis

Status

- Target after 2021
- Target partially achieved
- Target achieved
- Target not achieved

WHAT OUR STAKEHOLDERS TELL US

SUSTAINABILITY MUST BE INTEGRATED INTO THE OVERARCHING CORPORATE STRATEGY – THIS IS A COMPANY’S GREATEST RESPONSIBILITY.

THORSTEN PINKEPANK
Director Sustainability Relations at BASF SE; Chair of the UN Global Compact Network Germany

Fields of Action & SDGs ▼	Topics & Activities	Reference to GRI & SASB	Reference to UNGC ¹	Deadlines	Status December 31, 2021	Page
CSR Management	Develop a new materiality analysis according to BioNTech’s new status as a commercially producing company	GRI 102-(46-47)/103	--	2021	Expert interviews were conducted as a qualitative basis for a materiality analysis planned in 2022.	23
	Revise the CSR program	GRI 102-(46-47)/103	--	2021		24
	Revise the CSR strategy	GRI 102-(46-47)/103	--	2021/2022	Expert interviews were conducted as a qualitative basis for the development of a CSR strategy planned for 2022.	23
	Conduct a basic needs and responsibility analysis (RACI) for CSR governance, considering all CSR-relevant business areas	GRI 102-(46-47)/103	--	2022		23

¹ This Sustainability Report 2021 also serves as a Communication on Progress in line with the UN Global Compact. For further information, see [👉](#) page 29.



Fields of Action & SDGs ▼

 Attractive Employer



Topics & Activities

Reference to GRI & SASB

Reference to UNGC¹

Deadlines


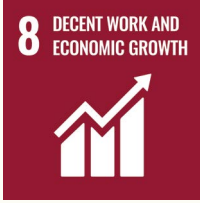


Status December 31, 2021

Page

Topics & Activities	Reference to GRI & SASB	Reference to UNGC ¹	Deadlines	Status December 31, 2021	Page
Introduce a company-wide employer branding strategy	SASB HC-BP-330a.1	--	Strategy: 2020 Implementation: 2023	The dynamic development of BioNTech, with its strategic and operational challenges, required a strengthening of the HR function. To this end, extensive analytical, strategic and conceptual work was started in the 2021 financial year under the heading HR 2.0. Based on these efforts, a new operating model with three pillars (a) Business Partnering, (b) Centers of Excellence (CoE) and (c) HR Servicing & Systems will be implemented in 2022. The objective is a more efficient and better aligned organization of the functions. Key objectives of the CSR program will be revised in 2022 in close cooperation with the new global HR leadership.	65, 66
Develop a "Pioneer Pipeline" management approach with objectives for internal and external "Pioneer Pipeline"	GRI 401/103; SASB HC-BP 330a.1	--	Strategy: 2020 Implementation: 2023		65, 66
Strengthen the external "Pioneer Pipeline"	SASB HC-BP 330a.1	--	2022		65, 68
Strengthen the internal "Pioneer Pipeline"	GRI 404-2 SASB HC-BP 330a.1	--	2023		65, 68
Design an employee development strategy for all career phases	SDG 4/8 SASB HC-BP 330a.1	--	2021		66
Continuously monitor diversity and anti-discrimination measures	GRI 406/103	6	2020 and ongoing		37, 65
Further develop the company-wide SHE (occupational safety and health) policy based on existing (binding) guidelines	GRI 403-1/103; GRI 403-(6; 8-10); SASB HCO0101-(17-19)	--	Strategy: 2021 Implementation: 2022	Strategy	54, 55
				Implementation	
Develop programs for dealing with mental stress	GRI 403-1/103	--	Analysis: 2020 Implementation: 2021	Analysis 2020	Sustainability Report 2020
				Implementation 2021	
Strengthen safety culture, health and well-being	GRI 403-5	--	2022		54, 55



¹ This Sustainability Report 2021 also serves as a Communication on Progress in line with the UN Global Compact. For further information, see [page 29](#).

Fields of Action & SDGs ▼	Topics & Activities	Reference to GRI & SASB	Reference to UNGC ¹	Deadlines	Status December 31, 2021	Page
Environment and Climate Protection						
   	Develop a climate protection strategy with specific climate targets	GRI 305	7	2021	A climate protection strategy with targets in accordance with SBTi was developed in 2021 and approved by the Management Board in Q1 2022.	57
	Conduct extensive Scope 3 reporting	GRI 305-3	7	Sustainability Report 2021	In 2021, for the first time, the Company calculated its full Scope 3 footprint, taking all relevant categories into consideration.	56
	Implement an environmental management system	GRI 305/306/103	7/8/9	2021	See 5.2: Group Environmental Management	53, 54
	Implement an energy management system	GRI 305	7/8/9	2021	See 5.2: Group Environmental Management	73
Responsible Governance						
	Strengthen compliance policies and target tracking	GRI 2055/206 SASB HC-BP-510a.1/2	10	2021 ongoing		36
	Manage suppliers and service providers (standardize onboarding process, due diligence for new suppliers)	GRI 102-9/308/414 SASB HC-BP-430a.1	1-6/10	2021 ongoing		39
	Eliminate occurrence of significant non-compliance related to the impact of products and services on patient safety and health	GRI 416-2 SASB HC-BP-210a.2	--	2021 ongoing		41ff.
	Establish a cross-departmental working group on "Sustainable Growth & Culture"			2021	See 6.5: Sustainable Growth & Culture (The Culture Campus)	71
	Corporate Citizenship: Develop a "Caring for Patients" concept			2021	Due to a reprioritization, this concept will now be prepared in 2022 and finalized in 2023.	27

¹ This Sustainability Report 2021 also serves as a Communication on Progress in line with the UN Global Compact. For further information, see [page 29](#).



3.4 CORPORATE CITIZENSHIP

BioNTech stands by its conviction that the Company has a responsibility as a corporate citizen. It meets this responsibility by fully embracing the Company's Corporate Citizenship concept, adopted by the Management Board in 2020. All Corporate Citizenship activities are managed by the CSR Team. The material topic "Caring for Patients" will be addressed and developed within this framework. The conceptual development that was planned for 2021 could not be conducted due to a reprioritization. As we remain committed to advancing this important topic, the formulation of the strategic concept on how to pursue this topic is now scheduled for 2022/2023.

In pursuing BioNTech's Corporate Citizenship projects, the Company will focus on its business areas and the development and promotion of employees' skills in areas such as corporate volunteering in a targeted and effective manner. BioNTech assigns great importance to shaping social commitment sustainably and in line with its corporate values.

Corporate Volunteering

As in 2020, corporate volunteering activities were heavily affected by the ongoing COVID-19 pandemic and the associated restrictions. The CSR Team still however implemented two projects in line with BioNTech's Corporate Citizenship concept in 2021.

Under the headline "Donating knowledge digitally", BioNTech participated in a virtual project to support the charitable work of non-profit organizations (NPOs) with free knowledge transfer, helping especially small organizations that cannot afford their own expertise. Employees were invited to participate in up to two 60-minute

sessions during their working hours, offering their expertise in areas such as Project Management or Strategy Development. This was an opportunity for employees to participate in an established volunteer project, experience community-minded work and create social impact in a compact format.

In July 2021, parts of Germany were severely affected by heavy rainfalls and the resulting flooding of vast areas in Rhineland-Palatinate, where BioNTech's headquarters in Mainz and its production site in Idar-Oberstein are located.

The Management Board expressly supported the voluntary commitment of BioNTech employees to disaster relief.

Many residents in nearby villages lost friends and relatives. Many also lost their houses, apartments and all their belongings. In light of the terrible human fates and damages that could be seen in our direct neighborhood, BioNTech initiated volunteer measures to support employees directly involved in the flood disaster relief effort. The Management Board expressly supported the voluntary commitment of BioNTech employees to disaster relief. Volunteers could request a day of special leave as a symbolic recognition of their volunteerism. In addition to the employees who took part in rescue and cleanup missions on an individual level, a department got involved as a team and spent a day on site to help clean up the debris left by the flooding.

In addition, the CSR and Internal Communications team, together with the German Red Cross, set up a donation platform to make it easy for employees to make private donations.

Donation Policy

A donation strategy was developed by the CSR Team and approved by the Management Board. A policy for the BioNTech Group was developed by the Compliance Team, approved in November 2020 by the Management Board, and implemented. The policy defines what constitutes a donation and outlines the corresponding approval process. Donations must fall within the scope of the defined donation strategy and policy and are evaluated on an individual basis by the Compliance Advisory Committee.

All donations are reviewed according to the following requirements:

- Donations can be made to charitable or not-for-profit organizations but not to individual or for-profit entities. Donations cannot be made to health care organizations.
- Donations to public hospitals or clinics in developing countries (especially LICs, MICs) are acceptable under strict compliance scrutiny.
- Donations cannot be received by organizations that have a parallel (business) relationship with BioNTech.
- Donations cannot be made to organizations or any affiliated organizations that in parallel provide services to BioNTech.
- Donations cannot serve the personal interest of any individual.
- Donations cannot directly/specifically serve the commercial interests of BioNTech.
- Donations can only be received by organizations that are appropriately registered or accredited under applicable local laws.



BioNTech employees provide support to flood victims

The images that circulated around the world from the Ahr Valley in July 2021 were hard to bear. They came from BioNTech's immediate neighborhood in Germany's western state of Rhineland-Palatinate (and North Rhine-Westphalia). The Ahr river, a branch of the Rhine river, was the scene of one of the worst flood disasters in Europe in the 21st century. 134 people lost their lives. Others lost their belongings taken away by the flood waters. And many are still faced with the task of rebuilding.

Help for employees directly and indirectly affected

The outpouring of help was enormous. Citizens and emergency volunteers, along with numerous businesses all over Germany, banded together to support the flood victims. BioNTech's Management Board promptly decided to grant two special day's leave of absence and individual help for employees affected by the flood as well as one for those who wanted to help. Employees also made an appeal for donations to the German Red Cross, which received a tremendous response: in just a few days, a total of € 19,201 in donations was collected group-wide.

One million euros in aid for flood victims

As a sign of solidarity, the Management Board also decided to donate one million euros to the German humanitarian organization "Aktionsbündnis Katastrophenhilfe". "Aktionsbündnis" is an alliance between Caritas International, the German Red Cross, Diakonie Katastrophenhilfe and UNICEF Germany, who have all joined forces to assist in major catastrophic events that demand global action.

The pictures were taken shortly after the flood disaster in July 2021 and show the material damage. All images provided by "Aktionsbündnis Katastrophenhilfe"



"Our thoughts are with the many people who have lost everything that is dear and valuable to them. Our donation should be seen as a sign of our solidarity and is intended to give courage for the difficult road ahead for those affected. Common unity is not only a core value in our work and research, but also a fundamental value for us as a company and part of our responsibility as a member of society", explained Dr. Sierk Poetting (Chief Operating Officer) and Jens Holstein (Chief Financial Officer) in their joint statement on July 28, 2021.

BioNTech's donation contributed to the effort of giving the affected people a prospect for the future. The proceeds were invested by the Alliance in food and water, as well as in pumps and dryers to repair flood damage. The German Red Cross played a significant role in securing the infrastructure for mobile medical services, which included emergency generators and satellite and radio communications. There is still a team of medical professionals working in the affected regions and offering support to rebuild critical infrastructure and provide psychological aid to children, teenagers and adults of all ages. Even after one year, the road back to normality is still long.



OUR THOUGHTS ARE WITH THE MANY PEOPLE WHO HAVE LOST EVERYTHING THAT IS DEAR AND VALUABLE TO THEM.



3.5 INITIATIVES & MEMBERSHIPS

BioNTech supports the vision of the UN Global Compact

BioNTech signed the UN Global Compact on March 9, 2020 and committed to submitting an annual progress report. The Sustainability Report 2021 also serves as a Communication on Progress (CoP) in line with the UN Global Compact.

The UN Global Compact is the world's largest and most important initiative for responsible corporate governance. Based on ten universal principles and the Sustainable Development Goals (SDGs), it pursues the vision of an inclusive and sustainable global economy for the benefit of all people, communities and markets. Building on the ten principles, signatories are called upon to promote the general goals of the United Nations, particularly the Sustainable Development Goals.

By signing the Global Compact, BioNTech shows that it shares this vision and intends to implement these corporate governance principles through its work. The Global Sustainability Goal 3: "Good health and wellbeing" is closely aligned with BioNTech's core business. BioNTech will continuously develop the reference to the SDGs. In this report, a more systematic reference is made mainly in the CSR program tables.

BioNTech joined the German econsense network in 2021

econsense is a network of internationally operating companies with a common goal of actively shaping the transition to a more sustainable economy and society. econsense supports its members in anchoring sustainability in operations and strategy, as well as along the supply chain. The network tracks and analyzes all of the relevant issues spanning from environmental protection to human rights, and always with a focus on the business case for sustainability. By exchanging with business, politics, and civil society, econsense

proactively addresses sustainability challenges and advocates frameworks and policies that facilitate business innovation and competitiveness. This makes econsense a valued thought leader, advisor, and partner in matters of sustainability.

BioNTech joins the German B.A.U.M. network in 2021

B.A.U.M. e.V. is a network committed to a future worth living through sustainable management. Founded in 1984 and with over 700 members, the association is a strong voice of sustainably operating companies and a driving force for sustainable development in Europe.

B.A.U.M. supports its members in the establishment and further development of sustainability strategies and brings together actors from business, politics, science, media and associations. The objective is the transformation to a social-ecological market economy based on the guiding principles of the United Nations' Sustainable Development Goals (SDG) and the Paris Agreement on climate protection.

Internationally, B.A.U.M. is a founding member of the International Network for Environmental Management e.V. (INEM).

BioNTech as a signatory of the Diversity Charter (Charta der Vielfalt)

The Diversity Charter is a German employer initiative to promote diversity within companies and institutions. The aim of the initiative is to advance the recognition, appreciation and inclusion of diversity in the working world in Germany. Signatories strive to create a working environment that is free of prejudice. All employees should be valued and feel appreciated regardless of their gender or gender identity, nationality, ethnic origin, religion or beliefs, disability, age, sexual orientation or identity.

By signing this initiative, BioNTech underlines its commitment to promoting diversity and creating an appreciative work environment at BioNTech and in the working world.



econsense



3.6 ESG RATINGS

ESG ratings are a valuable indicator for the continuous improvement of sustainability activities and sustainability management for BioNTech. They are a reflection of the expectations of relevant stakeholders and an important basis for the ongoing development of CSR management. The Company expects the relevance of ESG ratings to grow dynamically on the capital market.

BioNTech publishes its ESG rating results as soon as possible after their publication and within the scope of legal and regulatory requirements. Openness, dialogue and cooperation are important principles when engaging with ESG rating agencies.

Prime rating awarded by ISS ESG

BioNTech was awarded a “Prime” rating in its first ESG (Environmental, Social, Governance) assessment by the rating agency ISS ESG in 2021, following the publication of BioNTech’s first sustainability report, published for the year 2020. ISS ESG ranks BioNTech in the top 10% of all rated companies in the Pharmaceuticals and Biotechnology sector. ISS ESG is part of the Institutional Shareholder Services group (ISS).

S&P Corporate Sustainability Assessment (S&P CSA)

BioNTech received an overall score of 20 out of a possible 100 from the S&P Corporate Sustainability Assessment (CSA) as a non-participating company in 2021 (S&P Global ESG Score). Non-participating companies are assessed based on publicly available information only and do not actively participate in the CSA. The rating is updated annually or in response to major developments. The last update was made on November 12, 2021.

Details on the rating can be found on the [website of S&P](#). BioNTech intends to become a participating member by actively participating in the CSA in the future.



4.0 Responsible Governance

Ensuring BioNTech's resilience

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For good relationships:
We act ethically and responsibly and take all stakeholder interests into account.



Compliance Principles:
**Integrity,
Transparency &
Responsibility**



Principles of Animal Welfare



Whistleblower Hotline





**PROF. DR. ALEXANDER
BASSEN**

Chair of Capital Markets
and Management at the
University of Hamburg

Alexander Bassen is the Chair of Capital Markets and Management at the University of Hamburg. He is a member of the German Council for Sustainable Development and the Sustainable Finance Advisory Council of the German Federal Government. In addition, Prof. Bassen serves as a member of the EFRAG Project Task Force EU Sustainability Reporting Standard (PTF ESRS) and the G7 Impact Task Force. He is an Honorary Research Associate at the University of Oxford (Smith School of Enterprise and the Environment) and a Visiting Professor at the Hong Kong Baptist University.



WHAT OUR STAKEHOLDERS TELL US

GOVERNING A GROWING BUSINESS

“We are currently experiencing an environment of rapidly changing political regulations and reporting requirements. If implemented correctly, they will lay the groundwork for a more transparent, credible, and robust corporate governance that serves company-wide sustainability goals.

Such a comprehensive governance structure needs to consider several aspects, only some of which I will be pointing out explicitly here. The governance process on human rights must be clear, especially concerning the identification and mitigation of risks. In this respect, a close description of the value chain and associated (social) risks should constitute an integral part of reporting. The gender balance at management level should match self-set goals and ideally be indicative of the gender balance within the wider company. Additionally, companies need to ensure the greatest possible independence of the members of the supervisory board and management board. In this context, companies should be transparent about the comparable bodies of the supervisory board and the board’s composition. Ultimately, to drive the sustainability transition from within, the ESG competence of the supervisory board must be secured and steadily strengthened.

It is a pleasure to note that BioNTech understands the importance of strengthening governance structures to archive international standards as the company continues to grow. Many steps have already been taken in the right direction. What is more, with a business model directly contributing to the SDGs, BioNTech may well view upcoming sustainability requirements as an opportunity to attract new investors, for example. Going forward, in addition to improving its corporate governance, I would like to see BioNTech back up its ambitious goals with clearly defined indicators and measures to be implemented in its pursuit. A company that is as much in the public eye as BioNTech should – and can – act as a role model in terms of its governance.”

This Stakeholder Statement does not represent the views of BioNTech and has not been influenced by BioNTech.



4.0 Responsible Governance

4.1 MANAGING RESPONSIBLE GOVERNANCE

The Management Board and Supervisory Board work together for the benefit of BioNTech. They pursue the objective of sustainable value creation, taking into account the interests of the shareholders, the workforce and other stakeholders associated with BioNTech. These principles demand not only legal compliance, but also ethically sound and responsible conduct.

All CSR-related corporate governance topics were assessed as material for the Company and for non-financial reporting. The Company and the persons acting on the corporate bodies of BioNTech are aware of their role in, and their responsibility to, society. Social and environmental factors influence the Company's success. The Management Board and Supervisory Board act in BioNTech's best interest to ensure that the potential impact (opportunities and risks) of these factors on corporate strategy and operational decisions is recognized and addressed.

Detailed information about BioNTech's Management Board, Supervisory Board, compensation and board practices can be found in the Company's Annual Report on Form 20-F for the year ended December 31, 2021, which was filed with the SEC on March 30, 2022, and is available on the website of SEC. Key documents for corporate governance are also available on BioNTech's website in the [Corporate Governance section](#).

Sustainability performance and variable remuneration

At the Annual General Meeting of BioNTech SE on June 22, 2021, the Supervisory Board adopted a remuneration system, which was approved by the shareholders at the 2021 Annual General Meeting.

WHAT OUR STAKEHOLDERS TELL US



GOVERNANCE AND REPORTING STRUCTURES HAVE TO GROW SIGNIFICANTLY WITH THE COMPANY. THEY SHOULD BE ESTABLISHED WITH A SENSE OF PROPORTION, WITHOUT DIMINISHING THE POWER OF GROWTH AND INNOVATION.



INGO SPEICH

Head of Sustainability & Corporate Governance at Deka Investment; Member of the Sustainable Finance Committee of the German Federal Government

One part of the total remuneration was the short-term-related variable compensation (Short-Term Incentive, STI), which is based on Company targets and ESG targets.

The STI is a performance-based cash bonus with a one-year assessment period. It amounts to a maximum of 60% of the annual fixed compensation and depends on the financial and non-financial performance criteria (performance targets) of the BioNTech Group.

In addition to the corporate objectives, the Supervisory Board can also set uniform environment, social and governance (ESG) objectives for all members of the Management Board or separate objectives for individual members to incentivize sustainable and long-term corporate success.

When defining the specific ESG objectives for a given financial year, the Supervisory Board ensures that the following objectives are taken into account:

- Employee targets
- Sustainability targets
- Diversity targets
- Energy and environmental objectives
- Corporate governance

The Supervisory Board may also define other ESG objectives for a particular financial year or base them on external ESG ratings from Institutional Shareholder Services Inc. (ISS).



If the Supervisory Board decides to base the ESG objectives on an ISS ESG rating, the Supervisory Board shall determine the minimum rating to be achieved in the relevant financial year in order to fully meet the ISS ESG objectives. The ESG Corporate Rating applies a twelve-point grading system from A+/4.00 (excellent performance) to D-/1.00 (poor performance). If the ISS ESG rating in the relevant financial year meets or exceeds the previously set objective, the ESG objectives are considered to be fully met, and the target achievement is 100% for 20% to 30% of the STI. If the ISS ESG rating in the relevant financial year is below the previously set objective, the short-term variable compensation based on the ESG objectives is zero.

In 2021, the Supervisory Board resolved to make the ESG objectives conditional upon the achievement of a “Prime” rating from ISS (ISS ESG). In the 2021 rating year, a “C+” score was required to achieve a Prime rating.

As a result, 20% of the variable compensation (STI) of the members of the Management Board of BioNTech SE for the 2021 fiscal year was linked to the achievement of the ISS ESG Prime rating. In 2022, Management Board compensation is linked to the achievement of ESG targets, including maintaining a “Prime” rating from the ISS ESG rating agency.

Board Practices

Two-Tiered Board Structure

BioNTech is a European public limited-liability company (Societas Europaea or SE; also referred to as a European stock corporation) headquartered in Germany. It has chosen a two-tiered structure, with a Management Board (Vorstand), Supervisory Board (Aufsichtsrat) and Annual General Meeting (Hauptversammlung) as the corporate bodies. The Management and Supervisory Boards are entirely separate and, as a rule, no individual may simultaneously be a member of both boards.

The Management Board is responsible for the management of the business in accordance with the applicable laws, the Company’s Articles of Association (Satzung), and the Management Board’s internal rules of procedure (Geschäftsordnung). The Management Board also represents BioNTech in its dealings with third parties.

Members of both boards owe a duty of loyalty and care to the Company.

The principal function of the Supervisory Board is to oversee the Management Board. Additionally, the Supervisory Board is responsible for appointing and removing Management Board members, representing BioNTech in transactions between current and former members of the Management Board and the Company, and granting approvals for certain significant matters.

The Management Board and Supervisory Board are solely responsible for and manage their own areas of competency (Kompetenztrennung) and, therefore, pursuant to applicable law, the Company’s Articles of Association and the internal rules of procedure, neither board may make decisions that are the responsibility of the other board. Members of both boards owe a duty of loyalty and care to the Company. In carrying out their duties, they are required to exercise the standard of care of a prudent and diligent businessperson. If they fail to observe the appropriate standard of care, they may become liable to the Company.

In carrying out their duties, the members of both boards must take into account a broad range of considerations when making decisions, including the Company’s interests, the interests of its shareholders, employees, creditors and, to a limited extent, the general public, while respecting the right of shareholders to be treated equally. Beyond these duties, the Management Board also has responsibility for implementing an internal monitoring system for risk management purposes.

The Supervisory Board has comprehensive monitoring responsibilities. To ensure that the Supervisory Board can carry out its functions properly, the Management Board is required, among other duties, to regularly report to the Supervisory Board regarding current business operations and future business planning (including financial, investment and personnel planning). The Supervisory Board or any of its members is entitled to request a special report from the Management Board on any matters concerning the Company, legal and business relations with affiliated companies, and any business transactions or matters at affiliated companies that may have a significant impact on the Company’s position at any time.

Under German law, BioNTech’s shareholders generally have no direct recourse against the members of the Management Board or Supervisory Board should they be believed to have breached their duty of loyalty and care to the Company. Apart from when the Company is unable to fulfill its third party obligations, tortious conduct to board members or other special circumstances, only the Company would have the right to claim damages against the members of the Management Board or the Supervisory Board.

Independence of Supervisory Board Members

German law requires that the Supervisory Board consists of at least three members, whereas a company’s Articles of Association may stipulate a higher number. The Supervisory Board of BioNTech currently consists of four members.

As BioNTech is not subject to co-determination, the members of its Supervisory Board are elected by the Annual General Meeting in accordance with the provisions of Council Regulation (EC) No 2157/2001 of October 8, 2001 on the Statute for a European company and the German Stock Corporation Act (Aktiengesetz). The majority of Supervisory Board members are not required to be independent under German law, the Company’s Articles of Association (Satzung) or the Supervisory Board’s rules of procedure.



As BioNTech is not subject to co-determination, all members of the supervisory board are elected by the Annual General Meeting. The Supervisory Board shall include what it considers to be an appropriate number of independent members, thereby taking account the shareholder structure.

When assessing the independence of Supervisory Board members, it shall be taken into consideration whether the respective Supervisory Board member was a member of the Company’s management board in the two years prior to appointment; is maintaining or has maintained a material business relationship with the Company or one of the entities dependent upon the Company; is a close family member of a management board member; or has been a member of the Supervisory Board for more than twelve years – thereby taking into account the time as a listed company.

In the view of the Supervisory Board, four members of the Supervisory Board are deemed independent, namely Helmut Jeggle, Michael Motschmann, Prof. Christoph Huber, M.D., and Ulrich Wandschneider – and thus an appropriate number of its members. The Supervisory Board has also ensured that all of its members have sufficient time to exercise their mandates with the necessary regularity and diligence. For further information, see BioNTech’s Declaration of Conformity of the Management Board and the Supervisory Board with the German Corporate Governance on BioNTech’s website in the [Corporate Governance section](#).

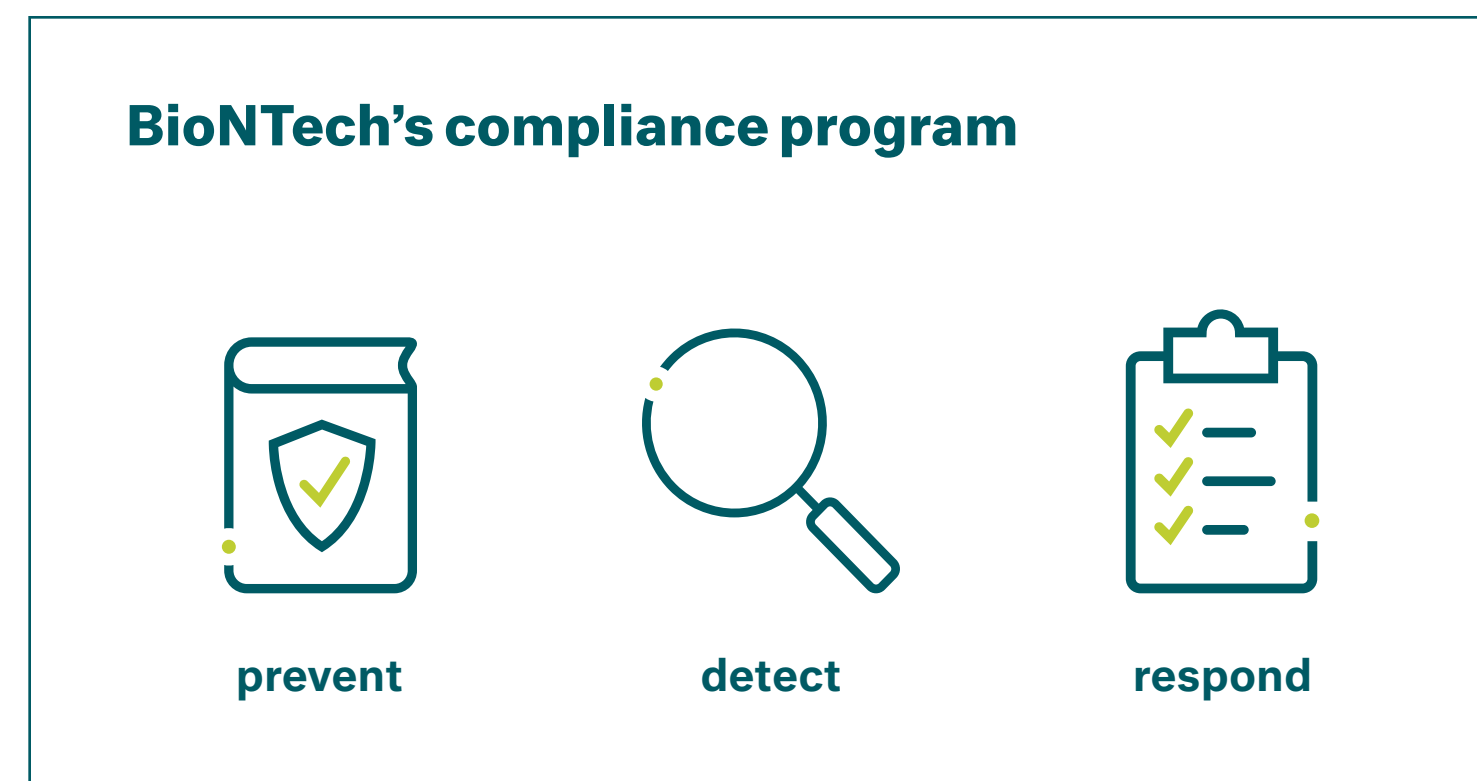
The Supervisory Board’s rules of procedure, however, provide that the board should have an independent member with expertise in the field of accounting, internal control processes and auditing. Dr. Ulrich Wandschneider meets this requirement.

A full description of BioNTech’s Board practices can be found in the Company’s Annual Report on Form 20-F for the year ended December 31, 2021, which was filed with the SEC on March 30, 2022 and is available on the SEC's website.

4.2 COMPLIANCE & ETHICS

Management & Responsibilities

The Company has implemented a comprehensive compliance program comprised of the three common elements of compliance programs: prevention, detection and response.



Prevention:

- Policies and procedures (accessible to all employees)
- Campaigns to reinforce strong ethical values (the compliance principles “integrity, transparency and responsibility” are part of every communication and supported by the tone at the top)
- Training and communication (due to COVID-19, on-site training sessions have been substituted with online videos and interactive virtual trainings)
- Third-party due diligence

Detection:

- Whistleblower hotline (“Ethics Contact Point”)
- Monitoring systems and auditing
- Internal investigations

Response:

- Disciplinary measures arising from investigations
- Remediation measures resulting from investigations and audits

The measures listed above are facilitated by a digital compliance platform, internally referred to as the BioNTech Best Practices Hub (BxP Hub). It offers a wide range of functions that support the rollout of policies, training, and monitoring activities and features a whistleblower hotline. BioNTech also employs the compliance department’s platform for approval processes related to conflict of interest management, invitations to meals and provision of business gifts, etc. An important new feature, added in 2021, is a module that captures all interactions involving a transfer of value with representatives in the healthcare community (healthcare professionals, healthcare organizations, patient organizations and patients).

Compliance Responsibilities

The overall responsibility for the compliance program lies with the Management Board. The Management Board provides the Audit Committee with regular reports on the operation of the Compliance program. Measures to strengthen corporate compliance are regularly presented to and discussed by the CSR Steering Board – irrespective of the overall responsibility of the Management Board.

In addition to the core responsibilities that are borne by the Compliance Team, the Company has set up a Compliance Advisory Committee (CAC) comprised of senior leaders representing different functions, such as Quality Assurance, Legal, Finance, Controlling, and Operations, to address any potential compliance risk in a concerted and cross-functional manner. The CAC also plays a crucial role in the new Policy Governance model, adopted by the Company in 2020. Under this model, the CAC reviews and discusses new corporate policies and guidelines (apart from compliance policies) to ensure that they have been streamlined and examined in an interdisciplinary manner. All BioNTech policies and guidelines are rolled out through the BxP Hub.



Improvements in 2021

In 2021, the compliance program at BioNTech witnessed major changes and fundamentally evolved in terms of the size of the team, further professionalization of the processes and its structure:

- The Compliance Team added six new members, including a senior member, to focus on compliance risks in the commercialization of BioNTech's first product Comirnaty®. A new position on the team was created for addressing compliance risks at the manufacturing sites in Germany. As a result, the key business areas now have a dedicated contact person in the Compliance Team who strengthens the relationship with local management and local staff. In addition to specific Compliance contact persons, the Compliance Team now also has a member responsible for internal investigations as well as compliance monitoring and controls. This member's first project was to create a new policy for internal investigations and establish a formal and robust internal investigations process (see **Speak Up Policy**).
- The existing Compliance policies and guidelines were revised to include the feedback received from employees and the management. Currently, the Compliance program comprises a total of 13 policies and guidelines (see [page 38](#)). Compliance policies are more general in nature (e.g., Anti-Corruption Policy), as opposed to guidelines, which contain more detailed procedural guidance and practical do's and don'ts (e.g., business gifts and hospitality guidelines, guidelines for line managers on how to address potential conflict of interest within their area of responsibility):

- **The Speak Up Policy:** This policy sets the standards for raising the awareness of potential misconduct at BioNTech and forms the foundation for BioNTech's Speak Up Program. It also provides protection to whistleblowers and explains the different channels available for reporting potential misconduct.
- **The Healthcare Transparency Policy:** By becoming a member of the FSA in 2021, BioNTech made a voluntary commitment to disclose all payments made to German healthcare professionals and organizations in accordance with the FSA Transparency Code. The Healthcare Transparency Policy sets internal requirements that must be met to ensure compliance with the respective external legal and voluntary requirements.

MEMBER OF FSA

BioNTech has been a member of the Voluntary Self-Regulation for the Pharmaceutical Industry, FSA (Freiwillige Selbstkontrolle für die Arzneimittelindustrie e.V.) since 2021. As of February 2022, 55 pharmaceutical companies have joined the FSA. The association was founded on February 16, 2004, by members of the German Association of Research-Based Pharmaceutical Companies (vfa). The FSA monitors the correct cooperation between pharmaceutical companies and physicians, pharmacists and other members of the medical profession and patient self-help organizations. To this end, the FSA has developed basic rules of conduct that rule out unfair influence on physicians and patient organizations. For effective enforcement, any disregard is made public and sanctioned. This lends weight to the codes of conduct. Anyone can report violations, even anonymously.

- The structure of the Compliance program has been revised and professionalized. In October 2021, the BioNTech Management Board approved the official "Compliance Service Catalog", which summarizes the purpose and scope of the BioNTech Compliance program. It also officially entitles the Compliance Team to put Compliance processes into practice globally.
- The following tone from the top, communication and awareness-raising measures were initiated as part of the Compliance program:
 - The Compliance department invited a renowned expert to speak about business ethics in front of the Management Board and the Supervisory Board (Compliance training of Management Board)
 - The Compliance program was addressed in one of the two town hall sessions by the Chief Operating Officer
 - A Compliance quiz was held in October 2021; more than 500 employees participated and answered ten questions on compliance policies and processes (they could win business gifts that had been previously forfeited as they were not in line with the BioNTech Business Gifts & Hospitality Guideline)
 - Several news articles were published on the intranet to raise awareness of the changes to the Compliance program; the intranet page of the Compliance department was also updated to provide useful handouts and guidance for new hires



Code of Business Conduct & Ethics

The Code of Business Conduct & Ethics was revised in 2019 to strengthen BioNTech's good corporate governance.

The Code of Conduct applies to all BioNTech Supervisory Board members, Management Board members, directors of subsidiaries, and employees. The Code is published on the [website of BioNTech](#) and serves as the foundation on how to behave when working for or on behalf of the BioNTech group. It provides an overview of the general requirements for complying with laws, regulations and BioNTech's internal policies. It covers topics such as human rights, international labor standards, anti-discrimination, patient safety, data protection, occupational safety, anti-corruption and fair competition. The Code is communicated to all employees at all locations. A signature of understanding and compliance is requested from all employees.



ACTING WITH INTEGRITY IS NON-NEGOTIABLE FOR BIONTECH.

BioNTech Code of Business Conduct & Ethics



>5,000

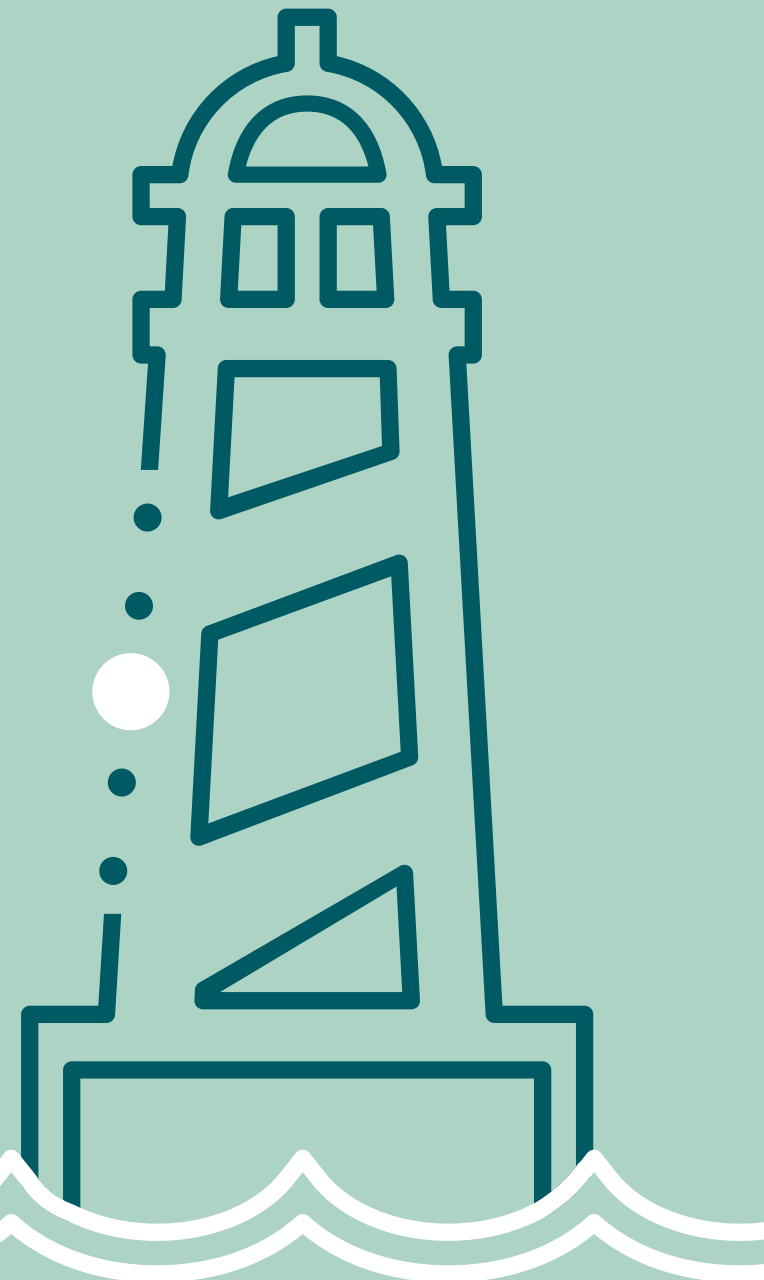
compliance-related questions answered by the Compliance Team

6

new compliance specialists hired in 2021

20

active corporate compliance training campaigns



FOR BIONTECH, IT IS SIMPLE: BRIBERY – OF ANYONE, AT ANY LEVEL, AT ANY ORGANIZATION – IS NEVER ACCEPTABLE.

BioNTech Code of Business Conduct & Ethics



Starting in October 2021, compliance with the Code became an integrated part of BioNTech's employment contracts. If an employee violates the Code of Conduct, the employee may face a range of disciplinary consequences, including termination of the employment contract.



As of Q1 2022, BioNTech's Compliance program comprises a total of 13 policies and guidelines. A selection of these is described here in abstract terms:

1 Conflicts of Interest Policy

BioNTech adopted a Conflicts of Interest Policy. The policy establishes binding procedures for potential and actual conflicts of interest. Under the Conflicts of Interest Policy, which applies to all Supervisory Board members, Management Board members, directors and employees, as well as directors of Company subsidiaries and employees, all BioNTech representatives are required to disclose any actual, potential or perceived conflicts of interest. If the conflict is transactional in nature and involves a Management Board or Supervisory Board member, the Management or Supervisory Board, as the case may be, shall consult with the Compliance and Business Ethics function who provides guidance and advice on how to manage the conflict of interest with transparency, integrity and in responsibility.

2 Anti-Bribery & Anti-Corruption

BioNTech is committed to eliminating all forms of corruption, including extortion and bribery. These principles were underlined by its signing of the UN Global Compact in March 2020. The Company has an Anti-Bribery and Anti-Corruption (ABAC) Policy in place, which is reviewed annually (the latest version is dated November 2021). In line with this policy, BioNTech exercises a zero-tolerance policy towards corruption and bribery and prohibits all forms of bribery (passive or active; indirect or direct). Each employee or consultant who provides services to the Company over a longer period signs the ABAC Policy and receives training. All contracts entered into with high-risk business partners (sales intermediaries, third parties acting on behalf of BioNTech) also include ABAC provisions.

3 Due Diligence Guideline

The Company has also established a third-party due diligence process that addresses potential ABAC risks. On the basis of certain criteria, high-risk third parties, as well as planned business relationships, are reviewed for potential Compliance risks. As a result of each compliance due diligence performed, the internal responsible person for the business relationship receives an assessment that outlines the potential risks identified and offers recommended mitigation measures to address those risks.

4 Business Gifts & Hospitality Guidelines

BioNTech introduced a business gifts and hospitality guideline in 2020, which was updated again in 2021 and 2022. The guideline prohibits making business gifts to healthcare professionals (HCPs) and government officials. It also sets a threshold (maximum amounts) for gifts and meals in general and specifies other requirements that must be met when receiving or providing business gifts and meals. The guideline provides restrictive guidance on the types of entertainment that may not be provided or facilitated for government officials (including HCPs).

5 Healthcare Interaction & Transparency Policies

With BioNTech's membership in the FSA in 2021, it made a commitment to voluntarily disclose all payments made to German healthcare professionals and organizations in accordance with the FSA Transparency Code. The Healthcare Transparency Policy sets internal requirements that must be met to ensure compliance with the respective external legal and voluntary requirements. Apart from the transparency requirements, there is a Healthcare Interaction Policy that sets out specific requirements that must be complied with when interacting with the healthcare community. Having implemented an IT-based module for healthcare interactions (see above), all interactions that involve a transfer of value must be submitted to the module for review by the Compliance Team. (see [page 36](#)).



4.3 SUPPLY CHAIN & HUMAN RIGHTS

Supplier Code of Conduct

As part of the Company's commitment to the principles set out in the BioNTech Code of Business Conduct and Ethics, the Company expects its business partners to adhere to comparable standards in their conduct (for further information, please see the [website of BioNTech](#)).

The principles of conduct are based primarily on the Pharmaceutical Industry Principles for Responsible Supply Chain Management of the Pharmaceutical Supply Chain Initiative (PSCI). The Code will be incorporated into contracts with future suppliers and will also be agreed to with existing suppliers. The implementation process has not yet begun and, therefore, the data according to GRI 414-1 and GRI 414-2 cannot be provided in this report.

German and EU Corporate Sustainability Due Diligence

The German Act on Corporate Due Diligence in Supply Chains ("Lieferkettensorgfaltspflichtengesetz – LkSG") will take effect in January 2023. Under this Act, the companies affected will be required to adopt a policy statement on respect for human rights and identify risks of human rights violations and environmental degradation at their direct as well as indirect suppliers on an ad hoc basis. Companies will also be required to take countermeasures and establish grievance mechanisms and document and submit these to the German Federal Office of Economics and Export Control (BAFA).

WHAT OUR STAKEHOLDERS TELL US



YOU CAN'T JUST TELL YOUR SUPPLIERS: THESE ARE THE GOALS; PLEASE FOLLOW THEM. THAT SIMPLY DOES NOT WORK. FOR SUPPLIERS TO OPEN UP ABOUT THEIR CHALLENGES, YOU HAVE TO CREATE AN ENVIRONMENT THAT IS OPEN AND NON-THREATENING TO THEM.



MANJIT SINGH

PSCI Board Member and former Chair, Associate Director Corporate Sustainability and responsible for global operational sustainability for the Centrient Pharmaceuticals supply chain

On February 23, 2022, the EU Commission adopted a proposal for a directive on corporate sustainability due diligence. The aim of this directive is to foster sustainable and responsible corporate behavior and anchor human rights and environmental considerations in companies' operations and corporate governance. The new rules will ensure that businesses address adverse impacts of their actions, including those in their value chains inside and outside Europe. The proposal goes beyond the German LkSG in many aspects, for example, in its scope of application, supply chain coverage, due diligence issues, and liability. BioNTech carefully monitors developments in corporate responsibility to respect human rights at a national, European and international level, as well as in other organizational contexts.

Accordingly, BioNTech is preparing a concrete approach to continuous human rights due diligence (HRDD), starting in May 2022. This includes the systematic identification of human rights opportunities, risks and gaps for the Company and its value chain, as well as a human rights due diligence roadmap with specific measures to close gaps and mitigate risks.



WHAT OUR STAKEHOLDERS TELL US



COMPLIANCE ALONG THE SUPPLY CHAIN CANNOT BE ACHIEVED THROUGH PROCESSES ALONE. IT'S A CULTURAL ISSUE AS WELL.



DR. MIRIAM SAAGE-MAASS

Vice Legal Director of the European Center of Constitutional and Human Rights (ECCHR)

By the end of 2022, guidelines, governance structures, processes and, at a later stage, systems are planned to proactively address the human rights obligations of the Company and its value chain and report regularly on the implementation.

Business Continuity Management

Since 2021, BioNTech has established a Business Continuity Management System (BCMS), which includes a Business Continuity (BC) Policy and Guideline. The management system encompasses different roles and processes. Taking on an operational role, BioNTech's Global BC Director is part of the Business Planning and Analysis (BPA) unit and reports directly to the COO. The BCMS is also in the process of hiring a Global Emergency Manager and two Global BC Specialists and already has one local BC leader in place at every location, as well as an overall BC team of around 125 people (Function Heads) across all BioNTech locations.

To ensure continuous learning and progress, training for BC team leads and team members is a fundamental part of the BCMS. All local and global Business Continuity Plans have been or will be successfully completed in 2022 (applies to locations in Berlin, Cambridge and Gaithersburg). Plans include preventive and recovery BC measures and are regularly tested and reviewed. BioNTech's IT infrastructure relies on its very own IT Disaster Recovery Plan of preventive measures based on the relevant standards that includes the Data Center and Server Management. All documents are centrally stored and protected through access restrictions.

Initially rolled out in 2021, the BCMS is subject to the PDCA cycle, which is a four-step process for carrying out change and ensuring a continuous improvement in the system. Every BC plan must be updated at least once a year. BioNTech's new locations and business activities are appropriately integrated into the BCMS at all times.

4.4 PATIENT SAFETY

Patient Safety and Caring for Patients

Patient Safety

Patient safety is the highest rated topic in BioNTech's materiality matrix of Corporate Social Responsibility (CSR). It includes all phases of the product lifecycle, from clinical development to the authorized and marketed product, as well as the observance of the highest quality standards in manufacturing, product labeling, and disclosure of product-related risks and benefits.

For the purpose of this Sustainability Report, the term "patient" is used to identify subjects receiving investigational medicinal product from BioNTech either within or outside a clinical trial and individuals receiving an approved medicinal product from BioNTech, including prophylactic vaccines against infectious diseases.

Caring for Patients

The high rating emphasizes the safety of the patient as a human being. Compliance with the strict global regulations on patient safety is based on this understanding. It is underscored by the similarly high CSR materiality score for the material CSR topic "Caring for Patients." The Company states that patients must never be a mere object of research or a means to an end. For BioNTech, caring for patients means treating them, their families and their friends with human dignity and the utmost respect at all times. The Sustainability Report 2020 announced the development of a "Caring for Patients" concept for 2021. Due to limited available resources, this concept is now being prepared in 2022/2023 and will be finalized in 2023.



Management Approach

BioNTech's Quality Management System is designed to ensure compliance with international guidelines encompassing clinical development, production, registration, and marketing of pharmaceuticals. These guidelines include, but are not limited to, Good Clinical Practices (GCP), Good Manufacturing Practices (GMP), Good Distribution Practices (GDP), the International Conference for Harmonization (ICH) guidelines, and Good Pharmacovigilance Practices (GVP). All processes within BioNTech or its partners that affect one of these areas are based on these principles.

BioNTech's Global Regulatory Affairs department is responsible for all submissions and correspondence to regulatory authorities during clinical trials and for obtaining and maintaining regulatory approvals globally. It is also in charge of ensuring compliance with technical requirements, fulfilling post-approval commitments and obligations, and coordinating the lifecycle management of approved products to keep the relevant dossiers and product information aligned with available scientific knowledge. Within the Global Regulatory Affairs department, the Regulatory Affairs CMC team is responsible for all regulatory matters related to chemistry, manufacturing, and controls (CMC) for both clinical trials and approved products. This includes the establishment and maintenance of state-of-the-art regulatory documentation and global dossier compliance with manufacturing processes and control strategy.

Implementation is continuously monitored by BioNTech's Quality Assurance department. Quality Assurance is responsible for ensuring that systems and processes are implemented to assure the quality of products entering the market or used in clinical trials. Quality defects that could have an impact on patient safety or lead to side effects are prevented as early as possible. Thus, Quality Management is responsible for reducing risks in production and



ENSURING HUMAN DIGNITY AT ALL TIMES IS IMPERATIVE.



eliminating defects, impurities and contamination, starting with the raw materials to the final product. It also supports the relevant quality assurance and legal standards.

Training

To raise general awareness for patient safety, BioNTech has company-wide, mandatory training in place on the fundamentals of pharmacovigilance. The training aims to give all BioNTech employees as well as relevant contractors the ability to identify and appropriately report safety-related information. All employees directly involved in the safety and quality of BioNTech's active ingredients receive regular training in accordance with internationally applicable rules. BioNTech also works to the requirements of Good Pharmacovigilance Practice

Transparency

BioNTech believes that the sharing of health information is fundamental for the good functioning of healthcare services, for patients' safety, and to advance research and improve public health. For this reason, BioNTech is committed to disclosing health information beyond what is required by applicable laws and regulations.

These voluntary commitments include registering all BioNTech sponsored clinical studies (Phase I and beyond, whether in healthy volunteers or patients, irrespective of where the study was conducted) on the publicly accessible clinicaltrials.gov website and reporting the outcomes for all primary and secondary outcome measures (irrespective of outcome, even if the product is discontinued) by posting summary data on clinicaltrials.gov and by posting expert and lay summaries on a publicly accessible website.

In addition, BioNTech will submit the outcomes for all primary and secondary outcome measures in such studies (irrespective of outcome, even if the product is discontinued) for publication in broadly accessible journals. All BioNTech publications will be prepared in accordance with standard editorial, ethical and transparency practices, e.g., those established by the International Committee of Medical Journal Editors (ICJME).

For clinical studies that were submitted to health authorities in support of granted applications for marketing authorization in the European Union and/or United States, BioNTech will also share ICH E6 clinical study reports with researchers upon request.



These voluntary commitments, including timelines, will be summarized in a declaration publicly posted on the Company's website. These commitments only apply for clinical studies with first study participants (FPI) after the date of issue of this declaration (March 25th, 2022) and where BioNTech is not prohibited from disclosing the health information, for example by contractual agreements with development partners. These commitments are anchored in written standard operating procedures that require regular audits for process compliance and that the outcomes of any audits will be publicly reported once a year.

Patient Safety in Clinical Trials

Through consistent risk-benefit management, BioNTech ensures that the benefits of drugs and therapies for patients always outweigh the risks. Long before a drug is marketed, findings from early studies are carefully analyzed and discussed with the relevant regulatory authorities. The drug undergoes a comprehensive research process with carefully designed and controlled clinical studies. In these studies, doctors work together with patients to test a method for detecting or treating a disease. In cases where BioNTech does not conduct the clinical study itself, it commissions qualified and trusted contract research organizations (CROs) to do so.

Due to the development of individualized therapies and medicine, BioNTech ensures individual monitoring of all patients in cooperation with the CROs and ensures a complete and strict chain of custody. Each individual study must be approved by a national regulatory authority and the responsible ethics committee(s).

The ethics committees are the patients' trustees. They are comprehensively involved in the study process, examining areas such as patient information and its comprehensibility, as well as the reasonableness of drug administration and treatment methods. Ethical questions that arise during a study, as well as systematic questions affecting patients, are coordinated by or with the ethics committee(s).

All parties involved – BioNTech, the CROs, the authorities, and the ethics committees – contribute towards ensuring that the well-being and safety of the patients are safeguarded.

The regulatory authority and ethics committee monitor and support each study and its data from approval to completion. All parties involved – BioNTech, the CROs, the authorities, and the ethics committees – contribute towards ensuring that the well-being and safety of the patients are safeguarded. If an unexpected risk to participants is identified at any moment during a clinical study, an internal procedure triggers a risk evaluation committee to collect information on the identified potential risk and recommend the most appropriate actions to safeguard patients' safety. This is performed in addition to the established regulatory requirements for reporting to the health authorities and/or ethic committees.

Patients who have questions or concerns about studies or research can contact the BioNTech Patient information and resource section on the [website of BioNTech](#) at any time.

Number of FDA Sponsor Inspections Related to Clinical Trial Management and Pharmacovigilance

During 2021, BioNTech underwent four FDA investigator site inspections related to clinical trial activities. Three of the inspections resulted in "No Actions Indicated" and one resulted in a "Voluntary Action Indicated".

With respect to clinical trials, no product recalls were issued in 2021, but there was one voluntary precaution: the sponsor of the trial, decided to perform a precautionary voluntary quarantine of an iNeST product manufactured by BioNTech.

Patient Safety for the COVID-19 Vaccine

Like any other pharmaceutical product, a potential vaccine must undergo stringent clinical testing and be manufactured consistently and reliably according to high standards. BioNTech received German regulatory authority approval to manufacture mRNA under GMP in 2011 and has since been producing mRNA for clinical testing, including the entire clinical supply for the COVID-19 mRNA vaccine.

BioNTech's CEO Ugur Sahin, together with eight other biopharma CEOs, pledged on September 8, 2020, to continue to make the safety and well-being of vaccinated individuals the top priority in the development of the first COVID-19 vaccines. The document was signed by the CEOs of AstraZeneca, BioNTech, GlaxoSmithKline, Johnson & Johnson, Merck (known as MSD outside the United States and Canada), Moderna, Novavax, Pfizer and Sanofi.

More than one billion people were vaccinated with the Pfizer-BioNTech vaccine in 2021.



BioNTech's mRNA-based COVID-19 vaccine product has either been authorized, approved for emergency or temporary use, or granted conditional marketing authorization in more than 100 countries and regions worldwide, including the United States and the European Union, as of December 2021 (see also "Special: BioNTech's Insight into Patient Safety" on [page 45](#)). In August 2021, BioNTech's vaccine received full FDA BLA (Biologics License Application) approval for individuals 16 years of age and older.

Monitoring Vaccine Safety

Rare or potentially serious side effects could occur that remain undetected during clinical development. For this reason, BioNTech's Medical Safety and Pharmacovigilance department, together with BioNTech's partner Pfizer, continuously monitors the benefit-risk profile of the COVID-19 vaccine.

Regulatory authorities conduct inspections periodically to see whether BioNTech is complying with pharmacovigilance regulations. In Germany, these inspections are carried out on behalf of the European Medicines Agency (EMA) by the Paul Ehrlich Institute (PEI) and the German Federal Institute for Vaccines and Biomedical Products. In 2021, routine inspections were performed by the European Medicines Agency (EMA), the UK's Medicines and Healthcare products Regulatory Agency (MHRA) and Health Canada. No critical observations were made. BioNTech additionally conducts internal audits, as well as partner audits, to ensure compliance with international legislation.

The Company has not received any FDA warning letters (or international equivalents) in the last three years, and there were no FDA enforcement actions taken in 2021 or earlier in response to violations of applicable Good Manufacturing Practices (GMPs).

BioNTech has not had to issue a recall with respect to the COVID-19 vaccine. In one case, in the first quarter of 2021, a voluntary precautionary measure was taken by BioNTech. A decision was made to halt vaccinations with the COVID-19 vaccine in Hong Kong and to voluntarily withdraw two batches before use because of a packaging defect.

Preventing Counterfeiting

BioNTech currently has one commercial product, the COVID-19 vaccine, supplied under a marketing authorization as "Comirnaty®" or under an emergency authorization as Pfizer-BioNTech COVID-19 vaccine in the respective countries

The Company has the following methods and technologies in place to ensure product traceability throughout the supply chain and prevent counterfeiting:

- The procurement of raw materials takes place exclusively via qualified and well-known service providers. When collecting finished products, BioNTech ensures the highest safety standards through close liaison with the Company's cooperation partner Pfizer and through specially qualified external contract manufacturers.
- Raw materials, intermediate products and finished products are stored in secured warehouses located on fenced, restricted-access and specially secured, camera-monitored sites.
- The inspection of materials in the incoming goods department is always carried out without exception using delivery bills and a digital merchandise management system that monitors all merchandise management activities and always enables clear identification by means of digitally stored configurations and unique barcodes.

For the supply of finished products in countries requiring serialized products, a unique, digitally assigned serialization number is printed on the label and communicated to the respective authority. Finally, each single vial and respective secondary and tertiary packaging container display the manufacturer's batch information. At the nodes in the supply chain, the batch number and barcode information is checked upon the goods' receipt. Finished products are sealed in secondary packaging using a tamper-evident seal or comparable packaging to prevent tampering.

In the supply of our products, we operate with specific security measures.

The special security measures for supplying to the EU markets include

- the complete traceability of the supply and real-time monitoring of the goods through active loggers with temperature monitoring and GPS tracking and a three-tier control tower, including established alerts and an escalation process for any incidents;
- secured pick-up and delivery; and
- an established BioNTech/Pfizer controlled distribution channel, including qualified service providers to ensure the vaccine's security.



Product Information

The global [Pfizer and BioNTech product and information website](#) provides the most up-to-date access to country-specific product information. The Summary of Product Characteristics (SmPC) for Comirnaty® and the Pfizer-BioNTech COVID-19 vaccine educates health care professionals on the correct use of the vaccine and enables informed treatment decisions. It contains all essential details describing the COVID-19 vaccine in accordance with legal requirements, such as dosing, administration, scheduling, storage, handling, contraindications, warnings and precautions, as well as possible side effects. The package leaflet available in country-specific languages provides all of the relevant information for the vaccine.

In 2021, BioNTech submitted multiple updates of the product information (SmPC and package leaflet) to the relevant regulatory authorities for approval in accordance with legal requirements. No legal violations resulting from false marketing claims were reported in 2021.

Interactions with HCPs and HCOs

The BioNTech Code of Business Conduct and Ethics includes a dedicated section on interactions with healthcare professionals (HCPs), patients, and healthcare organizations (HCOs). In addition, the Compliance and Business Ethics team has implemented and provided training on a policy for interacting with healthcare professionals. A general requirement laid out in the policy is that the following conditions must be met when interacting with HCPs:

WHAT OUR STAKEHOLDERS TELL US



WORLDWIDE, TRANSPARENCY STANDARDS AND PRACTICES IN THE PHARMACEUTICAL INDUSTRY ARE PICKING UP.



DANIELA KNODT

Sector Lead Healthcare at ISS ESG

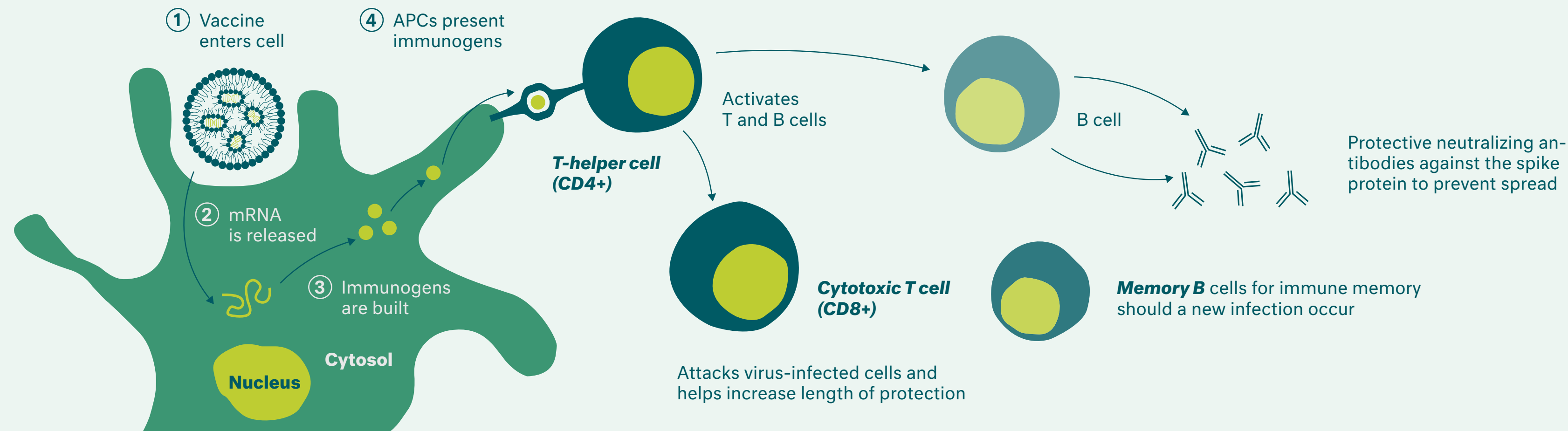
- **Legitimate business need:** Every interaction with an HCP requires a clear and legitimate business need.
- **Objective selection criteria:** HCPs that BioNTech representatives interact with must be selected according to objective, transparent and comprehensible criteria.
- **Independence:** Interactions between the Group (BioNTech) and HCPs must not be contingent upon the HCP’s past, present, or future prescribing, purchasing or referring of BioNTech products. This implies that BioNTech representatives may never offer anything of value to an HCP to influence their medical judgement or purchasing practices.

BioNTech has also established an internal process where all interactions with healthcare professionals and healthcare organizations are captured in an IT-based database that includes an approval and review process by the Compliance and Business Ethics team. This database also supports the adherence to HCP and HCO transparency reporting requirements. The Compliance and Business Ethics team has two dedicated FTEs to address healthcare compliance risks. No payments were made to patient organizations in 2021.

The promotion of off-label use of drugs and products is strictly prohibited by the Compliance Policy on Business Interactions with Healthcare Professionals. The policy sets forward the separation principle by which all sales-related business functions are prohibited from answering off-label use questions that are raised by HCPs. Any off-label use questions raised by HCPs can only be answered by the Medical Information team, which is part of the Global Medical Affairs team.



How mRNA-based prophylactic vaccines against infectious disease work



mRNA Vaccine-Mediated Side Effects via Genomic Integration Highly Unlikely.

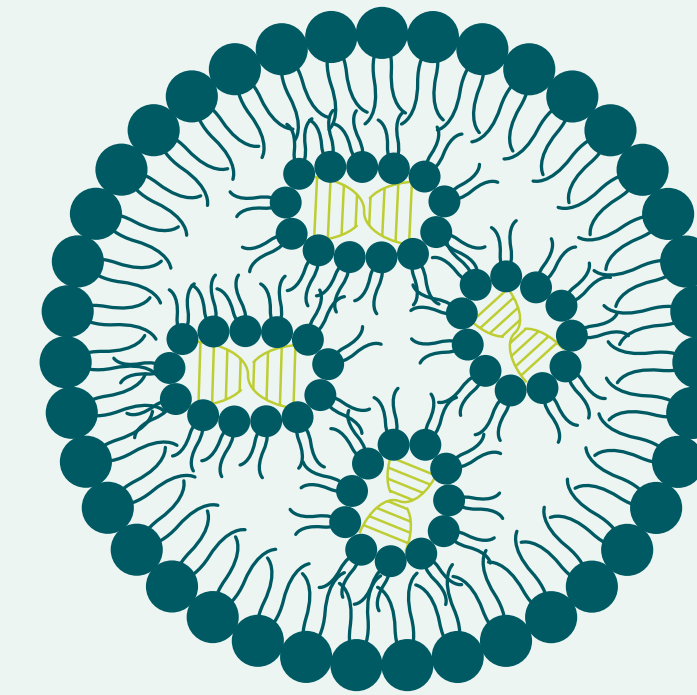
The COVID-19 vaccine was developed by BioNTech in partnership with Pfizer as a contribution to the worldwide efforts to address the COVID-19 pandemic and conforms to high scientific and ethical standards. The vaccine is based on messenger ribonucleic acid (mRNA) and is designed to generate immunity protecting against severe disease caused by the virus. It does not contain any live virus or its components. Nor does it contain any DNA.¹ Rather, the mRNA of the vaccine serves as the “blueprint” of a viral protein. This blueprint instructs human cells to temporarily produce and present these protein fragments of SARS-CoV-2 to immune cells, so that they “learn” and “remember” how to recognize and attack the virus. These “educated” immune memory cells can prevent the virus from entering cells and eradicate it from the body^{2,3} (see infographic on this page). They ensure a quick and specific immune response upon exposure to the actual virus, thereby blocking its spread within the body and to other individuals.

The use of the COVID-19 vaccine has been authorized in multiple countries after rigorous and successful clinical testing of its safety and efficacy.⁴ As this is the first mRNA vaccine ever approved for human use, several questions have been raised regarding its long-term effects, including whether the vaccine’s mRNA could cause any harmful long-term effects via integration into the human DNA thereby altering the genetic information. However, there is no biologically likely scenario for such events to take place. In order for the vaccine mRNA to integrate into the DNA and cause harm, the vaccine mRNA would need to (i) be reverse-transcribed into DNA, (ii) enter the nucleus, (iii) integrate into the genome, and thereby (iv) interfere with the regulation of specific genes. Each of these prerequisites is highly unlikely, and all of them happening at once is even less likely, as is further substantiated below.

i. mRNA and DNA have different chemical structures, and mRNA cannot directly integrate into DNA.⁵ For the information carried by an mRNA to be incorporated into the human DNA, the mRNA would first have to be reverse-transcribed into DNA. Genes are the basic units of hereditary information that can be passed on from parent to offspring or from a cell to its daughter cells during normal processes of growth and regeneration. The flow of genetic information in the human cell is much like the flow of a river, which cannot normally be turned around. Genes are stored in highly stable chromosomal DNA and can be transcribed into mRNA, which serves solely to deliver the genetic code to the protein synthesis machinery. Unlike DNA, each mRNA molecule only exists for the limited amount of time that is needed for the cell to decipher the code and produce proteins.⁵ Proteins serve as key tools of a cell and are involved in all vital processes, such as cell motility, signal transmission and metabolism. Enzymes capable of reverse transcription originate either from viruses such as the human immunodeficiency virus or from relics of ancient viral infections that are usually not present or active in a healthy person.



Overall, based on current biological knowledge, there is no likely scenario for the mRNA vaccination to cause changes to the genome or potentially harmful effects related to integration into the genome.



ii. In the extremely unlikely case that vaccine mRNA would be reverse-transcribed into DNA, an integration into the genome is unlikely and would require multiple additional steps that are prevented by quality control mechanisms of human cells.

iii. Integration into the genome is a highly inefficient process that requires the intruding DNA to have sequences matching the human DNA, or specific signal codes, of which neither is present in reverse-transcribed vaccine mRNA. Massive amounts of mRNA are continuously produced in the cell. And yet, none of that mRNA usually integrates into the genome. Consequently, even if reverse-transcribed vaccine mRNA made it into the nucleus, integration into the DNA genome is, again, highly unlikely.

iv. The reason people are concerned about foreign DNA being integrated into the DNA genome is the potential to promote oncogenesis. The process of DNA integration per se can potentially activate genes that promote or inactivate genes that prevent cell division, thereby promoting tumor formation. Given the sheer size of the genome, it is highly unlikely that DNA integration damages a cell in such a way. Most of the human genome consists of DNA sequences that do not control the structure or function of any genes.^{6,7} Therefore, the overwhelming majority of insertions has no significant consequences.^{8,9} For example, more than 90% of

the human population is infected with the Epstein Barr virus (EBV), a virus that is known to integrate into the DNA genome; nonetheless, EBV-related cancer is very rare.¹⁰

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4.5 PATIENT PRIVACY

When patients, customers or other individuals do business with BioNTech, they entrust their personal information to the Company. Having access to this information is vital for BioNTech's business and the advancement of science. BioNTech takes responsibility for ensuring that personal information is collected, used and processed only for legitimate business purposes while protecting the data from any possible misuse, inappropriate disclosure or loss.



**WE ASK EACH
PATIENT FOR
THEIR CONSENT
AND TELL THEM
HOW WE USE
THEIR DATA.**



When processing the personal data of employees, customers, patients, business partners, stakeholders and other individuals to conduct its business, BioNTech is responsible for ensuring it complies with the data protection laws it is subject to. These data protection laws include the European Union General Data Protection Regulation ("GDPR") and other laws in the various countries where BioNTech operates. The laws apply to any activity that involves personal data, including but not limited to, market research, clinical studies and other research with human subjects, consulting and service arrangements, and the processing of financial transactions. The BioNTech Data Privacy Policy sets out the requirements and standards applicable to BioNTech for the processing of personal data throughout the course of BioNTech's business activities and aims to ensure compliance with data protection laws.

In addition to the internal data privacy policy reflecting the GDPR principles and other applicable data protection laws, BioNTech's commercial (consumer) data privacy notice can be viewed on the website of BioNTech. The notice applies to all personal data of natural persons and business partners, including consumers, contractors, customers, study participants, and employees of business partners, as well as to parties interested in establishing a business relationship with BioNTech.

4.6 ANIMAL WELFARE

BioNTech aspires to improve the health of people worldwide by harnessing the full potential of the immune system. The Company's mission is to develop the next generation of immunotherapies for cancer and other serious diseases through scientific rigor and operational excellence.

BioNTech is committed to limiting the use of animal testing to a minimum and supports the substitution with alternatives wherever feasible and reliable.

The use of animal testing remains a small yet important part of drug research and development – and therefore in fulfilling the Company's mission. In order to ensure the highest possible standards of animal welfare, BioNTech is committed to limiting the use of animal testing to a minimum and supports the substitution with alternatives wherever feasible and reliable. In the CSR materiality analysis, animal welfare was identified as a material CSR issue for BioNTech. In accordance with Global Reporting Initiative (GRI) requirements, the Company reports on its position and commitments concerning animal welfare and how it ensures adherence to these standards in its management and daily operations.



BioNTech's Commitment and 4Rs

BioNTech is morally and legally obligated to ensure the quality, safety, feasibility and efficacy of its vaccines and therapeutics. While the Company is committed to developing and implementing non-animal methods, animal studies remain essential in drug research and development to fulfill the requirements of regulatory agencies, as some questions can be only partially addressed in vitro (e.g., with cell culture systems) or in silico on computer models.

While acknowledging that animal testing is an integral part of the drug research and development process, BioNTech is fully committed to ensuring that tests are always critical and considerate of the animal's welfare, as well as kept to a minimum, and in accordance with the highest animal welfare standards. In addition, in its testing practices, BioNTech is taking steps to meet the legal and regulatory requirements for animal studies. The Company is committed to the three Rs (Replacement, Reduction, Refinement) and has added a fourth dimension: Responsibility.

The 4R Principles for Animal Welfare

The following systematic process has been established and is continuously reviewed and improved where necessary:



→ **Replacement:** BioNTech has established a continuous process that prioritizes whenever possible non-animal methods over the use of animals. BioNTech's in vitro test systems are based on standard cell cultures such as those derived from cancer entities. Researchers use patient material (e.g., biopsies and blood donations) for test systems, allowing them to decode the complex interplay of the immune system in health and disease and use this knowledge for drug development.



→ **Reduction:** The number of animals required to obtain the necessary scientific information is kept to an absolute minimum. For example, isolated murine or human tissue slices can be used to predict the impact of a substance on toxicity and cell activation. Furthermore, processes have been established making surplus and stratified laboratory animals available to other scientists within the Company in order to reduce the number of animals used. In close collaboration with the Histology Unit, biobanks with murine tissues are built up and made accessible for all BioNTech researchers to pre-evaluate their scientific questions. Through such interventions, the Company can systematically reduce the number of animals required to a minimum.



→ **Refinement:** All research methods should be refined to promote animal welfare and prevent or minimize the potential pain, suffering and distress of the animals. BioNTech never causes pain or discomfort for the sake of saving labor, time or money. In addition, the Company's employees are actively trained and supported to investigate and implement refinements to methods and their daily work with animals.



→ **Responsibility:** BioNTech takes responsibility for all animals used in research and development by ensuring that all staff involved in these processes continue to be educated on how to implement the three Rs above and are well-equipped to uphold the Company's high animal welfare standards and the responsibility towards all animals. Regular meetings are conducted to provide an internal exchange platform for scientists to share their experimental outcomes and experiences and thus support collaborative scientific excellence.



Focusing on the Fourth R: Responsibility

BioNTech feels a deep responsibility to continuously improve animal welfare – an effort that is closely coordinated with the CSR Steering Board. Technicians, scientists and veterinarians regularly conduct retrospective analyses of experiments with an eye to animal welfare, a process that includes evaluating scientific data and establishing guidelines for animal protection.

BioNTech has also established an ongoing training program for those involved in animal testing, which includes a range of different theoretical continuous education and hands-on training courses for people involved in different topics of laboratory animal science. The program will be continuously updated and therefore always cover the latest insights and best practices when it comes to biology, behavior and handling methods. Theoretical training is complemented by practical instruction and hands-on experience whenever possible.

Test Planning

Every study involving vertebrate animals must be announced and reported to the regulatory authorities to ensure transparency in research activities and clinical drug development. An individual animal testing plan must be drawn up for all experiments and approved by the responsible regulatory authorities in cooperation with an independent ethics commission on animal welfare. The entire process is monitored strictly by several relevant authorities and internal bodies. In addition, each experimental animal proposal is critically reviewed by internal and external experts in the field of laboratory animal science regarding the reasonableness, feasibility and potential knowledge gain. Furthermore, there are regular meetings of the Animal Welfare Commission where current topics in laboratory animal science and their implementation are discussed.

At BioNTech, pathways and processes are established to check suitable drug candidates before animal testing is initiated, all in accordance with the principle of limiting preclinical studies to the most promising substances and targets. To reduce the Company's use of animals, BioNTech's researchers use computer models and a range of in vitro test systems (e.g., with cell cultures, murine or human cell compartments, or isolated tissues of interest) during the planning and preparation processes. This ensures that studies involving animals take place only when absolutely necessary. In accordance with the current animal welfare regulations, the Company has installed various animal welfare officers and veterinarians. In addition, regular inspections of animal facilities take place to ensure and constantly improve the standards of laboratory animal science and animal welfare.

**BioNTech helps to ensure
animal welfare by employing a
specialized management team.**

Management & Supply

In accordance with European and national law and the European Commission's "Ethics for Researchers," it is BioNTech's responsibility to not inflict pain, suffering or harm on any animal without reasonable justification while limiting adverse effects as much as possible.

All EU animal studies during preclinical research are conducted in state-of-the-art animal facilities with housing conditions that are in strict accordance with Annex III of Directive 2010/63/EU. Outside the EU, BioNTech conducts animal research only in AAALAC accredited research laboratories. AAALAC International is a private, nonprofit organization that promotes the humane treatment of animals in science through voluntary accreditation and assessment programs.

The Company helps ensure animal welfare by employing a specialized management team and strictly implementing animal welfare guidelines. It also maintains a dedicated and regularly trained staff, monitors the work of animal welfare officers and veterinarians through routine inspections, and openly and transparently cooperates with authorities.

BioNTech's suppliers are also expected to comply with the rules of its Supplier Code of Conduct. In the General Terms and Conditions of Purchase, BioNTech reserves the right of extraordinary termination if animal welfare standards are violated.

In close coordination with the CSR Steering Board, a cross-functional working group has begun a comprehensive review of BioNTech's existing measures. The goal is to further strengthen the Company's animal welfare management while emphasizing that this is seen as a continuous process that will extend into 2022 and beyond. This process will also include the preparation of a Company-wide policy for laboratory animal science and animal welfare.



4.7 GOVERNMENT RELATIONS

Tax Compliance

BioNTech cooperates with the relevant tax authorities in all tax matters in a trustworthy and transparent manner, in line with the mandatory Code of Business Conduct & Ethics. This also includes not performing any tax-motivated transfer mispricing. The Company also makes certain that it effectively monitors tax-relevant business processes in a risk-oriented manner. It aims to utilize tax exemptions, rebates, and benefits in a trustworthy and transparent way when making future financial and business decisions.

In the 2021 fiscal year, BioNTech operated primarily in Germany, and therefore the tax expenses concern mainly the German tax group (see [➔ Chapter 1.4 Economic Contributions](#)).

Financial Assistance

Government Grants

During the year ended December 31, 2020, BioNTech received a government funding commitment for government grants totaling €375.0 million. The commitment was issued on September 15, 2020, as part of an initiative of the German Federal Ministry of Education and Research (BMBF) to support the accelerated development of COVID-19 vaccines. During the year ended December 31, 2021, the final drawdowns were made. Overall, during the years ended December 31, 2021 and 2020 €48.1 million and €326.9 million,

respectively, were received in cash. The proportion of the grant that related to expenses incurred during the years ended December 31, 2021 and 2020, was recognized as other operating income with an amount of €136.1 million and €238.9 million, respectively. BioNTech used the milestone-based BMBF funding to support its contribution to the Company's mRNA vaccine program BNT162 that is being co-developed with its partners Pfizer Inc. and Fosun Pharma.

Loans from State-Supported Banks

The European Investment Bank (EIB) and BioNTech concluded a €100.0 million debt financing agreement, consisting of two tranches of €50.0 million each on June 11, 2020, to support the development of the Company's COVID-19 vaccine program. The financing was used to expand BioNTech's manufacturing capacity to facilitate the rapid supply of the vaccine worldwide in response to the pandemic. During the year ended December 31, 2021, the amount of €50.0 million initially drawn down was repaid, and the additional €50.0 million available for further drawdown was cancelled.

Special Non-Governmental Grants

On November 25, 2020, BioNTech and the Bill & Melinda Gates Foundation (BMGF) signed a grant agreement under which BMGF provides BioNTech a COVID immunotherapy and pandemic grant supporting the development of a COVID-19 therapeutic approach.

Advocacy

Political Contributions

BioNTech does not make monetary contributions to political parties or affiliated political organizations. The same applies to initiatives that support the objectives of a political party's candidacy for public office. In addition, the Company does not make monetary contributions to influence in any way the election of a representative to public office or a candidate for public office.

Public Affairs

Due to the high sociopolitical relevance of BioNTech's COVID-19 vaccine, the Company is experiencing increasing interest in its positions in the political realm. Where necessary, BioNTech has presented its positions and views in direct dialog with politicians. In early 2021, the Company began strategically and operationally bundling its public affairs activities into an independent function. BioNTech aims to promote constructive exchange with its political stakeholders and advance the vision of fighting infectious diseases and cancer through the development of novel therapies.

Lobby Register

▢ BioNTech SE and ▢ BioNTech Europe GmbH have registered in the lobby register of the German Bundestag in the first quarter of 2022, thus following a legal obligation. In the lobby register, the annual financial expenditures in the area of lobbying, the channels for lobbying purpose as well as the lobbying positions are transparently documented.



5.0 Environmental & Climate Protection

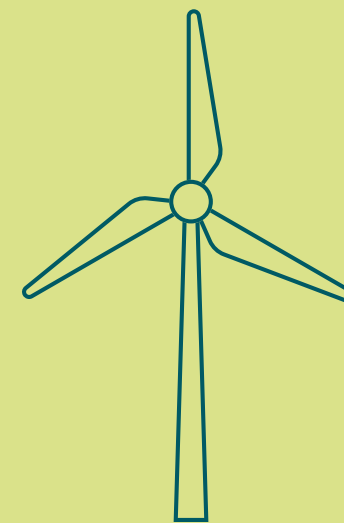
Creating value within planetary boundaries

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For future generations:
We follow our successful path in a Paris-aligned¹
and environmentally conscious way.

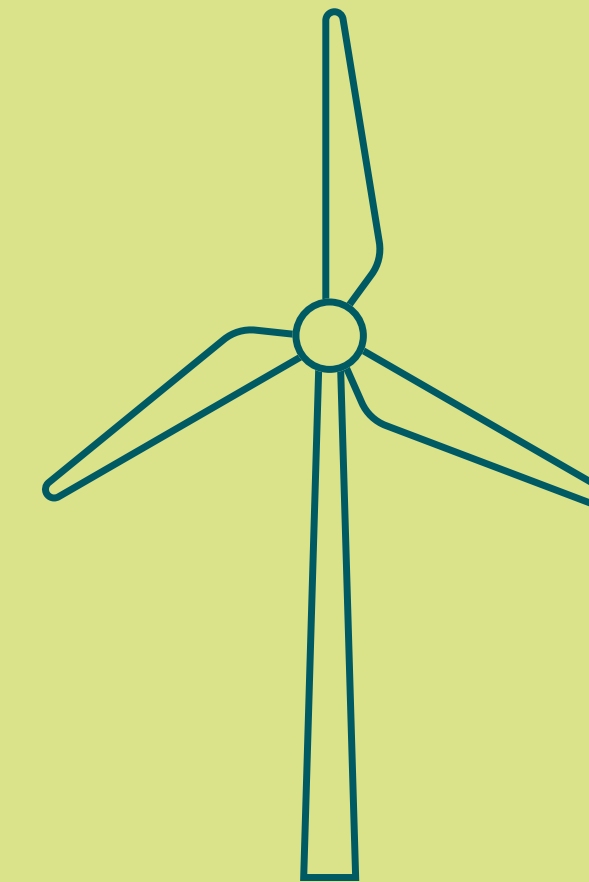
¹ See [page 54](#)

99.8%
of BioNTech GHG emissions
are generated in the value chain
(Scope 3)



Percentage of renewable
electricity from bought-in
electricity in 2021:

91%



Share of renewable
energy in energy
consumption in 2021:

39%



BioNTech CO₂e footprint 2021:

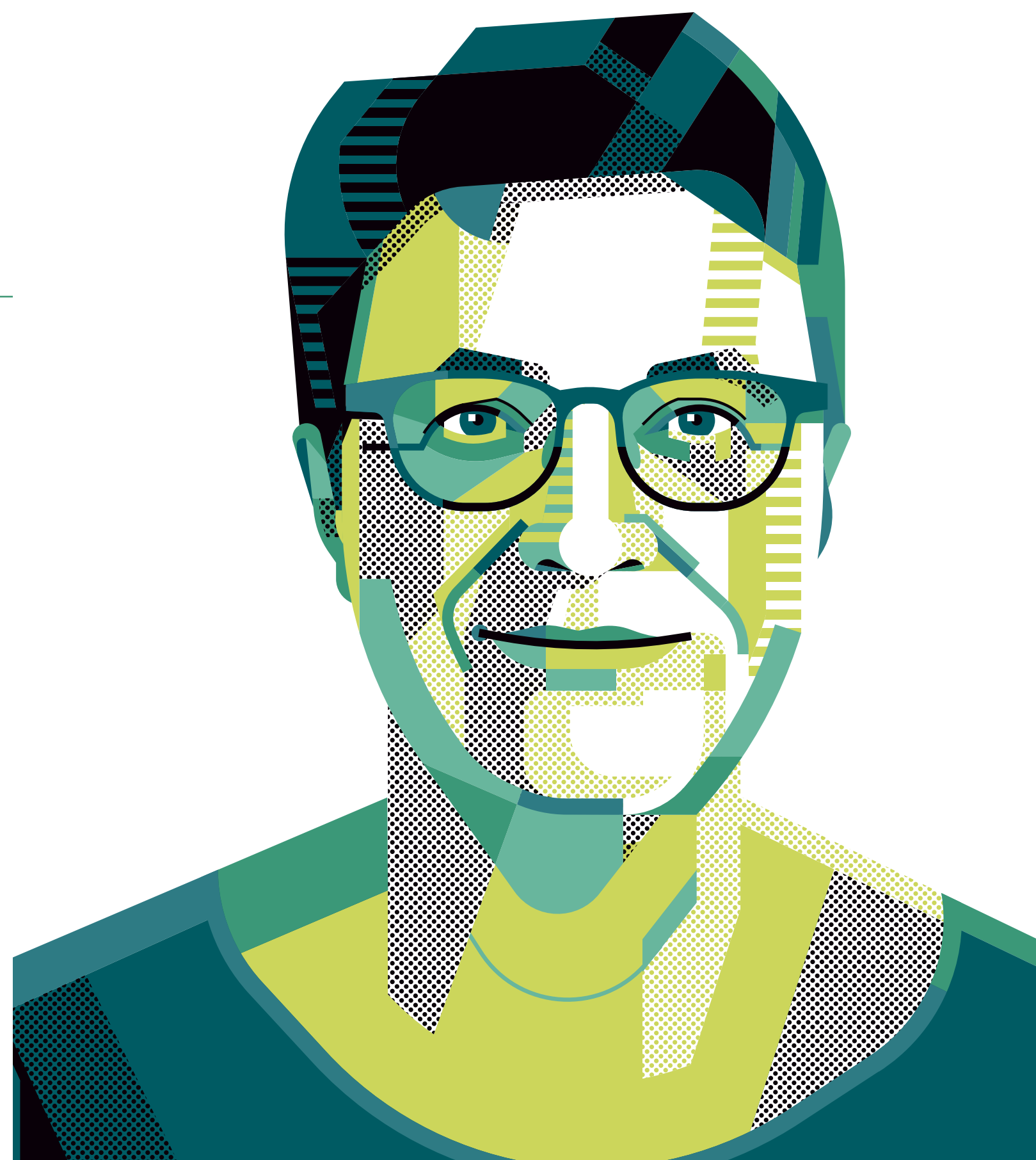
1,577,122
metric tons

Scope 1 & 2 targets for 2030 vs. 2021:
Absolute reduction of GHG emissions by



42%
(SBTi-compliant)





DR. ANN DIERCKX
Sustainable Development
Director at the European
Chemical Industry
Council (Cefic)

A bioengineer by training, Ann Dierckx draws on more than 25 years of expertise in energy, climate and industrial development issues. After joining Cefic in 2008, she partnered with chemistry and business councils worldwide to produce the chemical sector's SDG Roadmap. By identifying a portfolio of sustainability development indicators, Cefic now aligns industry strategies with the Green Deal objectives of a climate-neutral and zero-pollution Europe.



WHAT OUR STAKEHOLDERS TELL US

TRANSITIONING TO A LOW-CARBON FUTURE

“From the UN SDGs and the European Green Deal to corporate responsibility strategies – for any sustainability agenda to succeed, we need chemistry. For example: according to BioNTech's own supply chain analysis, approximately 43% of BioNTech's Tier 1-n CO₂e emissions of purchased goods and services (Scope 3.1) are chemical products. As “the industry of industries,” which supplies almost all sectors of the economy, the chemical industry plays a key role in enabling and accelerating the transition towards a low-carbon, resource-efficient society.

Since our materials and technologies rely on the production, use and disposal of chemicals that can come with negative effects, we are committed to a toxic-free environment that prevents the harmful exposure of humans and nature to hazardous chemicals and fosters innovation for the development of safe and sustainable-by-design alternatives.

Just as for energy generation, the main element in many chemicals, food, and medical products is carbon. In light of the climate crisis, we cannot continue to extract carbon from non-renewable fossil resources but must instead join forces across industries to operate climate-neutrally. The chemical industry is keen to develop fewer fossil carbon-intensive products and to consider alternative carbon sources and production pathways. Bio-based chemistry, for example, relies on sustainably managed biomass as a feedstock. Chemical recycling and valorization of CO₂ allow for carbon circularity, which effectively reduces environmental footprints.

Going beyond carbon management, a market for sustainable products and practices takes shape. To make further progress, the chemical and all other relevant industries need a holistic approach to emissions, resources and waste, and an upstream-downstream dialog along the entire value chain. This is where Cefic counts on collaborating with pioneers like BioNTech – a company intrinsically motivated to improve living conditions worldwide while operating within planetary boundaries.”



5.0 Environmental & Climate Protection

5.1 BIONTECH'S IMPACT ON THE ENVIRONMENT

As a research-based and commercially producing biotech company, BioNTech and its work have an impact on the environment. The Company's increasing production and R&D activities require resources, such as energy and water, and generate waste. GHG emissions are also embedded in the goods and services purchased by BioNTech, and the Company recognizes the need to reduce these in its supply chain. Additionally, personal interaction with other researchers, collaborators and business partners is essential and requires business travel for many of BioNTech activities. The highly regulated safety and quality requirements in the biotech industry, for example, in the areas of waste and water management, also present their own special challenges in environmental protection.

The major infrastructure and construction projects BioNTech has planned will also have a impact on the environment and surrounding local areas. Such projects include new production sites in Africa and on other continents and countries outside the European Union. The Company's strong growth overall potentially means a correspondingly greater burden for the environment and the climate. BioNTech's growth through acquiring new sites also contributes to its environmental impact.

BioNTech's CSR materiality analysis revealed two topics for the field of action "Environmental and Climate Protection": "pollution & waste," whose relevance was rated as very high, and "climate protection," which was rated as material. BioNTech is focused on minimizing its environmental impact whilst balancing compliance with the industry's strict regulations.



HUMAN-INDUCED CLIMATE CHANGE IS ALREADY AFFECTING MANY WEATHER AND CLIMATE EXTREMES IN EVERY REGION ACROSS THE GLOBE. EVIDENCE OF OBSERVED CHANGES IN EXTREMES HAS STRENGTHENED.



Source: IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change

5.2 GROUP ENVIRONMENTAL MANAGEMENT

BioNTech was founded in 2008. For more than ten years, it operated as a research and development company with small-scale production for clinical trials. As a result of the Company's organic and inorganic growth and commercial production of the COVID-19 vaccine, which started in 2020 and was ramped up in 2021, the requirements for environmental management have increased. Consequently, the corporate environmental management of the BioNTech Group is evolving.

The essential responsibility for the environmental management of the BioNTech Group lies within the Global Safety, Health and Environment department (SHE) and is embedded in the Environmental Programs & Protection department. Climate protection as a strategic objective is part of the CSR function with direct, regular reporting to the COO and managed in close cooperation between the CSR department and other relevant departments, such as the Environmental Programs & Protection.

The scope of Global Safety, Health and Environment includes, among others, environmental and climate protection, wastewater and waste management, energy management, energy audits, occupational health and safety, plant and process safety, as well as biological safety and hygiene. Group-wide guidelines and operating instructions on these topics are continuously developed, improved, and monitored. Compliance with all relevant environmental, health and occupational safety laws and regulations is assured. SHE's management accompanies the construction of new technical systems, the introduction of new processes and monitors their compliance with all relevant requirements. To this end, the department is in communication with the authorities and supports the conduction of external audits.



When acquiring new sites or starting new infrastructure and construction projects, environmental due diligence procedures are performed. The Company strives for high standards in the environmental design of buildings, laboratories, offices and company premises and their equipment.

SHE’s management carries out its own risk assessments and, in liaison with the CSR Team, contributes to group-wide risk management. Potential risks are identified, evaluated and qualified, or financially quantified within defined criteria, and appropriate measures are taken if necessary.

In 2021, the Company started to establish a group-wide SHE management system which includes the following:

- Conducting DIN EN 16247-1 energy audits at all sites as a foundation for ISO 50001-certified energy management and ISO 14001-certified environmental management system with targets, measures and KPIs. The aim is to implement a globally coherent SHE management system in line with international standards. A Stage 1 audit for the first location is planned for Q4/2022.
- Optimizing the existing data in areas such as energy use and water and waste combined with reduction targets and action plans. One outcome of this will be the establishment and publication of SHE policy and targets in Q2/2022.
- Developing a holistic and specific BioNTech standard for sustainable construction and infrastructure projects, taking into account biodiversity and the climate protection targets. Finalization of the standard is planned for 2022.

5.3 CLIMATE PROTECTION

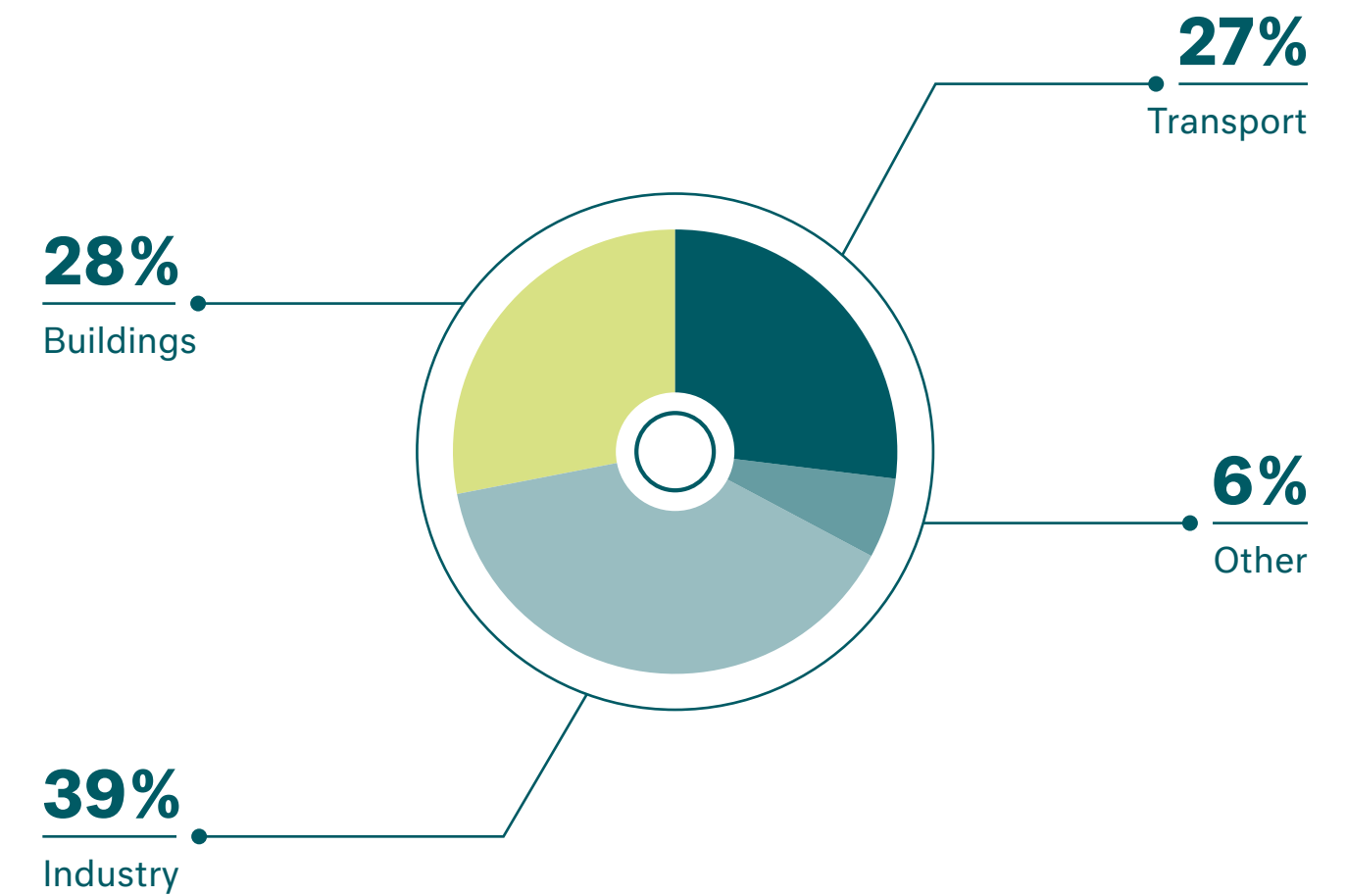
The climate crisis is one of the main global challenges of our time. Human activities have been causing anthropogenic greenhouse gases since the start of industrialization and are resulting in rising temperatures. We are already experiencing various consequences of this, such as weather-related natural disasters. Limiting global warming to 1.5 C compared to pre-industrial levels and meeting the goals of the Paris Agreement require a profound transformation in the way BioNTech produces goods to enable massive and immediate cuts in greenhouse gas emissions (GHG emissions). After allocating electricity and heat emissions to final sectors, industry continued to be the largest emitting sector, with 39% of global emissions in 2019. As an industrial company, BioNTech takes responsibility for its own share of this.

While BioNTech’s focus is on improving people’s health, climate protection forms an integral part of its strategy. In 2020, BioNTech’s materiality analysis rated climate protection as a key material topic, highlighting its importance for both the Company’s stakeholders as well as its own impact. Due to the direct link between the energy consumption (GRI 302) of BioNTech’s sites and its Scope 1 and Scope 2 GHG emissions footprint (GRI 305), both are summarized and reported as one comprehensive management approach.

Climate Governance

The ultimate responsibility for environmental issues, such as energy and emissions, is assigned to the COO, who is briefed regularly. He ensures that relevant GHG emissions and energy topics are considered in the work and decisions of the Management Board. Climate-related performance metrics are indirectly represented in the variable remuneration of the Management Board since a share of this remuneration is dependent upon maintaining the ISS ESG “Prime” rating (see [page 30](#)).

Global CO₂ emissions by sector, 2019



After allocating electricity and heat emissions to final sectors, industry continued to be the largest emitting sector, with 39% of global emissions in 2019.

Source: IEA (2021), Greenhouse Gas Emissions from Energy: Overview, IEA, Paris
<https://www.iea.org/reports/greenhouse-gas-emissions-from-energy-overview>



WHAT OUR STAKEHOLDERS TELL US

**BIONTECH CAN –
AND SHOULD –
AIM TO SET A
'BEST-IN-CLASS'
EXAMPLE.**

**ANN DIERCKX**

Sustainable Development Director –
Cefic (European Chemical Industry Council)

The increasing importance of climate protection and reducing BioNTech's GHG emissions is reflected in the revision of the Company's climate protection strategy, which involved large parts of the Company and the Management Board.

In 2021, BioNTech established the basis for a comprehensive and thoughtful climate strategy. In the course of this, two Management Board members participated in climate protection coaching in 2021 and in the first quarter of 2022. Four substantiated executive summaries on BioNTech's climate protection and decarbonization strategies were prepared based on this coaching. The summaries were made available to the entire Management Board and Supervisory Board, as well as to all of the Company's executives who are involved in climate protection.

**In 2021, BioNTech established
the basis for a comprehensive and
thoughtful climate strategy.**

To keep in step with the Company's organic and inorganic growth in 2021, BioNTech expanded the internal management of environmental topics. Generally, the SHE (Safety, Health and Environmental Protection) management department is responsible for the environmental management of the BioNTech Group. Together with an internal network of environmental experts and dedicated site managers, BioNTech ensures that environmental standards and operating requirements are continuously observed. Moreover, relevant group-wide and site-specific standard operating procedures (SOPs) ensure compliance with applicable national and local laws and regulations. Easily accessible online libraries containing all SOPs, regulations, and other environmental information are available to all authorized employees.

In 2022, BioNTech plans to further develop and strengthen its climate governance with the aim to integrate climate considerations into every business aspect.

New Baseline on Greenhouse Gas Emissions

BioNTech accounts for its greenhouse gas emissions in accordance with the internationally recognized standards of the GHG Protocol using the "operational control" approach. Under this approach, the Company accounts for 100% of the GHG emissions from the operations over which it has control. The Company's CO₂e footprint in 2021 was 1,577,122 metric tons of CO₂e. A total of 3,223 metric tons are Scope 1 & 2 (0.2%), and 1,537,898 metric tons are Scope 3 (99.8%).

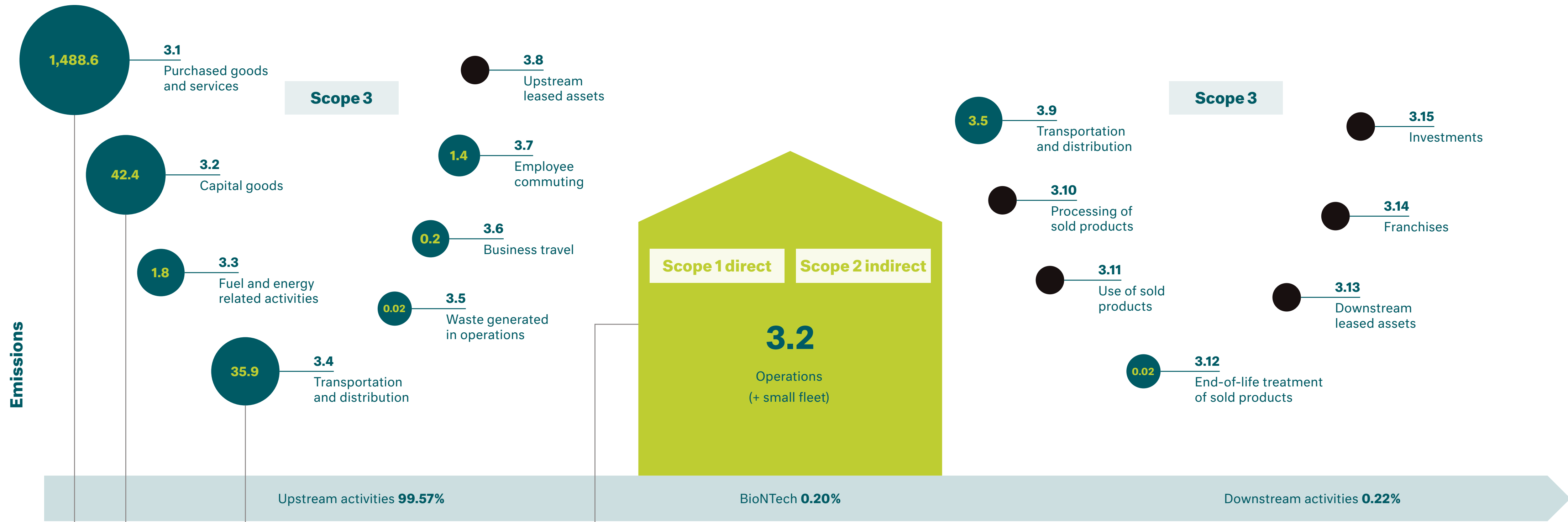
In 2021, for the first time, the Company calculated its full Scope 3 footprint, taking all relevant categories into consideration (see infographic on [page 56](#)). The majority (over 95%) of GHG emissions resulted from Scope 3 category 3.1: Purchased goods and services (for further information on these data see [page 79](#)).

The year 2021 also represents the first full year of BioNTech's commercial production, leading to higher energy consumption and increased goods and services needed for its operations. The Company will be using the new 2021 baseline year and comprehensive emissions data for future comparisons of its climate protection efforts.



First full GHG footprint (Scope 1, 2 and 3)

Overview of emissions – Baseline 2021 in 1,000 t CO₂e



Emissions

Targets

Science-based Scope 3 target:
Supplier engagement target for Scope 3: suppliers, which cover at least 2/3 of BioNTech’s Scope 3 GHG emissions, are obliged to set themselves near-term targets in line with the SBTi

Science-based Scope 1 & 2 targets:
Absolute reduction target of 42% by 2030 (compared to base year 2021) is set in accordance with the SBTi requirements for near-term targets

■ Calculated ■ No relevance



Climate Strategy

BioNTech recognizes the importance of contributing to climate protection and therefore developed a comprehensive climate strategy in 2021.

The Company addresses climate change by minimizing the impact of its business activities, cutting GHG emissions in its operations and in the entire value chain.

WHAT OUR STAKEHOLDERS TELL US



TO EFFECTIVELY COUNTER CLIMATE AND ENVIRONMENTAL RISKS, BIONTECH NEEDS TO FOLLOW THE SCIENCE – NOT JUST GREENHOUSE GAS EMISSIONS.



LEA FINK
Global Senior Manager
Outreach and Engagement at SBTi

As part of the review of the climate protection strategy announced in the Sustainability Report 2020, and after consulting the Supervisory Board, the Management Board set the following emissions reduction targets in line with the Science-Based Targets Initiative (SBTi) (see also infographic on [page 56](#)):

- An absolute reduction of 42% in the Company’s Scope 1 and 2 greenhouse gas emissions by 2030 (target value: 1,900 t CO₂e) compared to the baseline year of 2021 (3,200 t CO₂e) in accordance with the SBTi requirements for near-term targets.
- A supplier engagement target for Scope 3 greenhouse gas emissions that requires the most important suppliers, which cover at least 2/3 of BioNTech’s Scope 3 greenhouse gas emissions, to set themselves near-term science-based targets in line with the SBTi requirements. This near-term Scope 3 target is to be achieved no later than 2026.
- A commitment by the Company to submit the above science-based targets to SBTi for validation as soon as possible.
- The Company’s integration of GHG emissions reduction targets into its operations, its expansion and investment planning and its supply and value chain management to achieve the near-term science-based targets while acknowledging the additional CapEx, OpEX and FTE requirements.

Climate protection in operations

BioNTech wants to take an active role in climate protection by reducing the emissions under its direct influence. With increasing production and growth, the key challenge for the Company is to simultaneously reduce its Scope 1 & 2 emissions. To address this challenge, BioNTech started to develop mitigation levers in 2021, which are outlined on [page 58](#).

Climate Protection in the Supply Chain

In 2021, BioNTech conducted a comprehensive analysis of its Scope 3 emissions. These emissions are outside BioNTech’s direct sphere of influence but account for more than 99% of its total Scope 1–3 footprint. In the reporting year, BioNTech calculated all relevant sources in its upstream and downstream value chains to identify hotspots and key emissions sources. The majority (over 95%) of GHG emissions stemmed from category 3.1: Purchased goods and services. In this Scope 3 category, which is the most important for BioNTech, chemical products (43%) and pharmaceutical products (42%) have the most significant shares.

Chemical and pharmaceutical products dominate the BioNTech supply chain

85% of CO₂e emissions of purchased goods and services¹ are triggered by suppliers of the sectors chemical products and basic pharmaceutical products.



43%

Chemical products



42%

Basic pharmaceutical products

The remaining 15% is distributed among the following sectors: rubber and plastic products, business services, human health and social work activities, insurance, metal products, computer, and construction.

¹ Sectors of Tier 1-n CO₂e emissions of Scope 3.1 Purchased goods and services; Source: PwC Analysis (ESCHER sectors), based on data collection for Q1-4 2021, 1,347 kt CO₂e of 1,488 kt CO₂e (91%) could be mapped to specific suppliers, allowing for this more detailed analysis.



BioNTech used an extended environmental input-output model to assess its impact throughout the Tier 1-n supply chain. The analysis also revealed the key suppliers, covering approximately 80% of Scope 3 emissions. BioNTech aims to work with these key suppliers to collaboratively accelerate climate action.

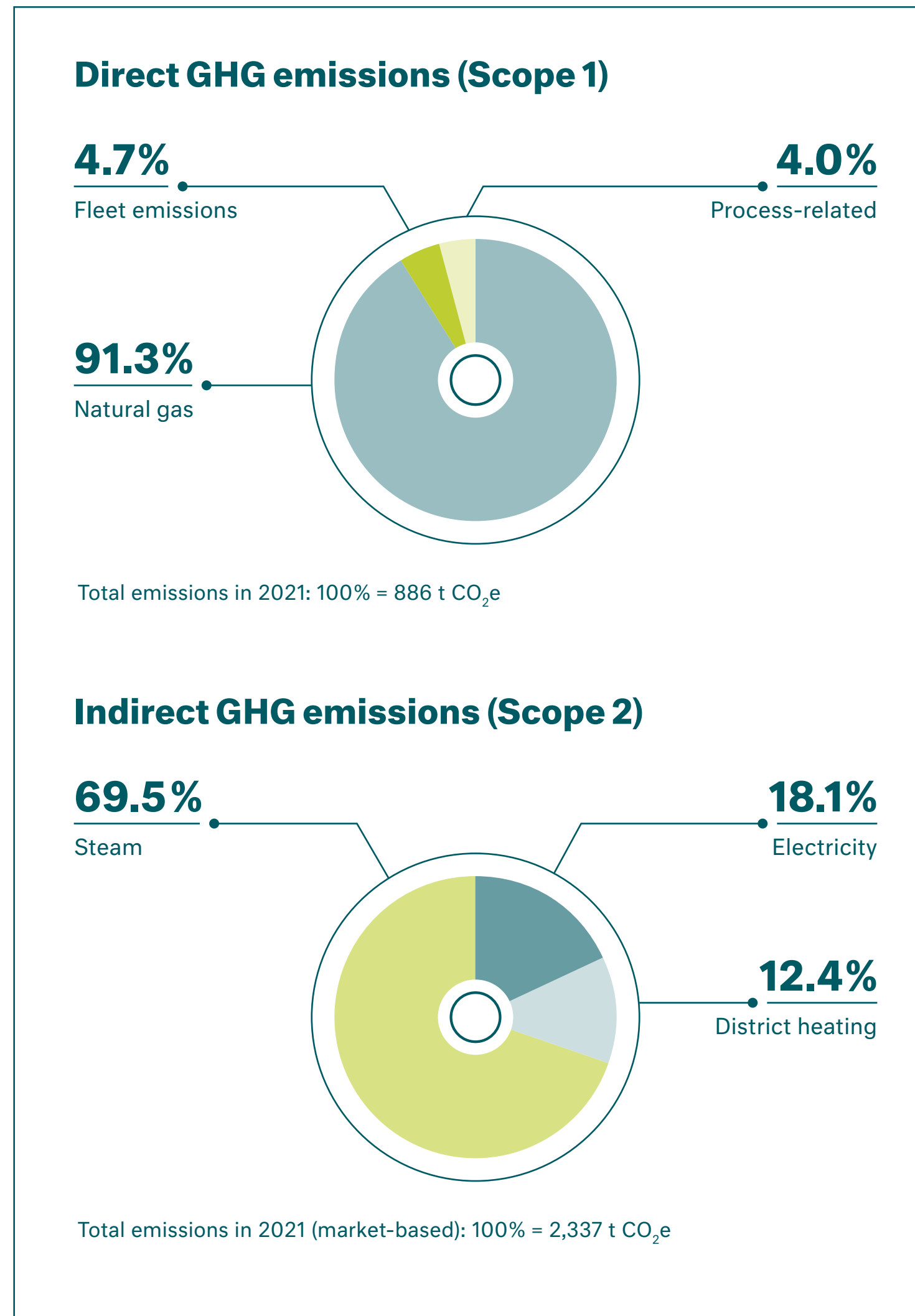
The Company will also complement the current input-output model with primary data from key suppliers to actively manage the supply chain impact. Consequently, BioNTech will further develop and train its staff in the responsible departments and identify additionally required resources to further implement climate action in the Company's procurement practices.

Climate risk management

From a risk perspective, BioNTech recognizes the impact the climate crisis has on its business. To reduce climate risks, the Company will address transition and physical climate risks and opportunities to a greater extent in 2022 and 2023. Within the next two years, BioNTech aims to report climate-related risks and opportunities in line with the TCFD (Task Force on Climate-related Financial Disclosures) recommendations, including possible climate risks in the supply chain.

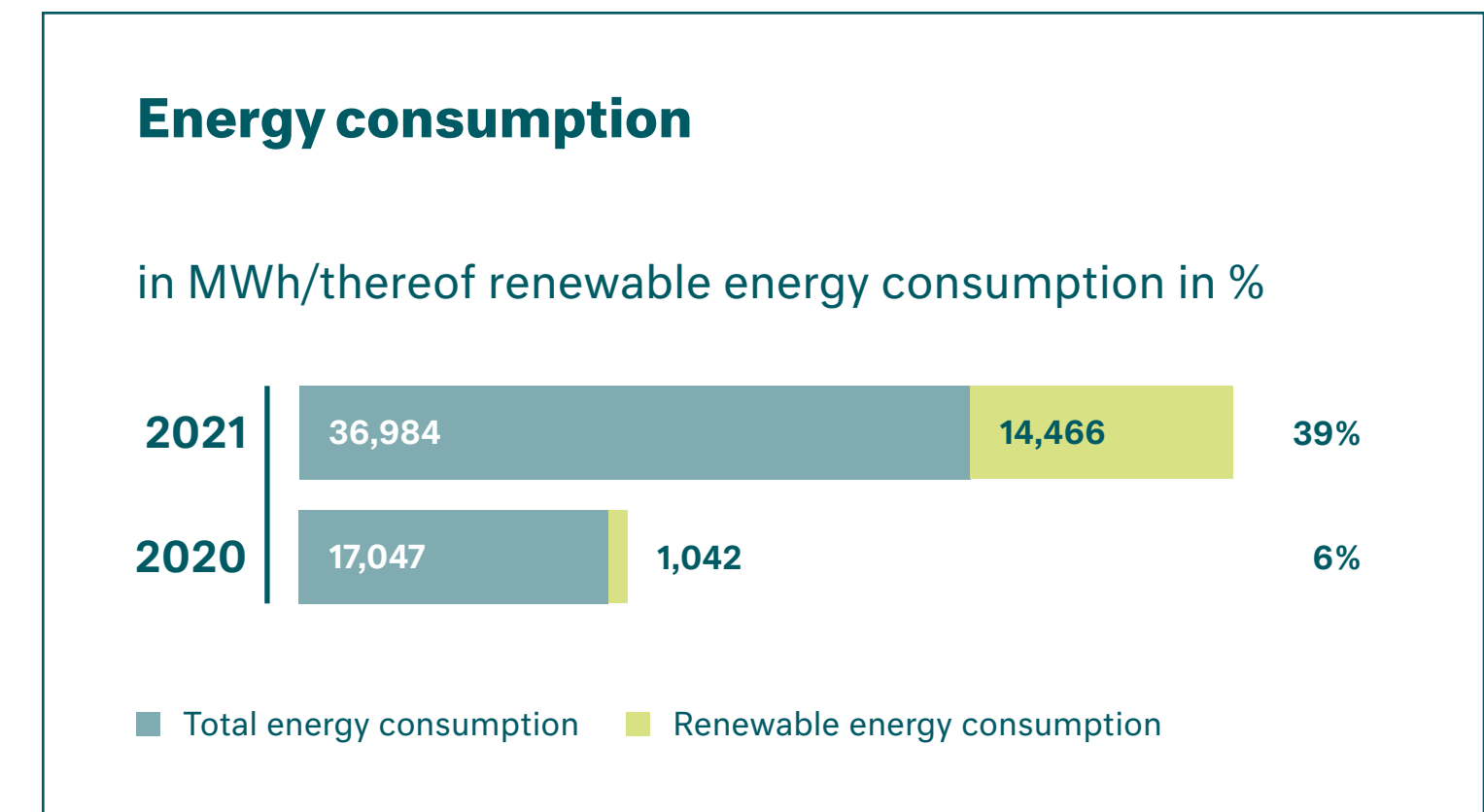
Climate protection in operations

The greenhouse gas (GHG) emissions from BioNTech's operations are directly related to the amount and type of energy the Company consumes (for further information on GHG emissions data, see [page 78](#)).



The Company primarily uses energy for heat and electricity within its premises. In addition, a significant portion of natural gas consumption is used to generate steam for the production facilities and research and development processes (for further information on energy consumption data, see [page 77](#)).

In the reporting year, BioNTech developed a set of measures aiming to decrease its energy consumption and switch to renewable alternatives. These measures are explained in detail in the subsequent paragraphs.



In 2022, BioNTech plans to further define clear fields of action, such as energy efficiency and the provision of renewable energy sources. There are bundles of measures already implemented under each field of action, as well as plans to develop new innovative projects ranging from renewable heat generation to the structured procurement of renewable electricity.



Understanding BioNTech's Energy Requirements

In 2021, BioNTech created its first holistic overview of the main energy consumers and corresponding emissions sources at its sites at the process and infrastructure level. This overview was based on a status quo analysis of the sites' energy requirements covering all energy sources and a review of the current energy supply situation within the individual units of the corporate structure. As a result of this analysis, suitable focus locations were selected for the transformation agenda to reduce GHG emissions. The selection criteria included energy consumption and relevance to the decarbonization of BioNTech and

to the Company's expansion and overall infrastructure. Additionally, an initial decarbonization team was selected to drive forward the implementation of various decarbonization measures.

Following a series of workshops, the team identified several measures of varying scale for each location and prioritized them according to their complexity and GHG reduction potential. The measures were compiled and cataloged to serve as a reference guide for future expansion projects, incorporating criteria such as climate impact, cost-effectiveness, technology resilience, regulations and an initial assessment of BioNTech's opportunities, issues, strengths, and weaknesses.

Energy Efficiency

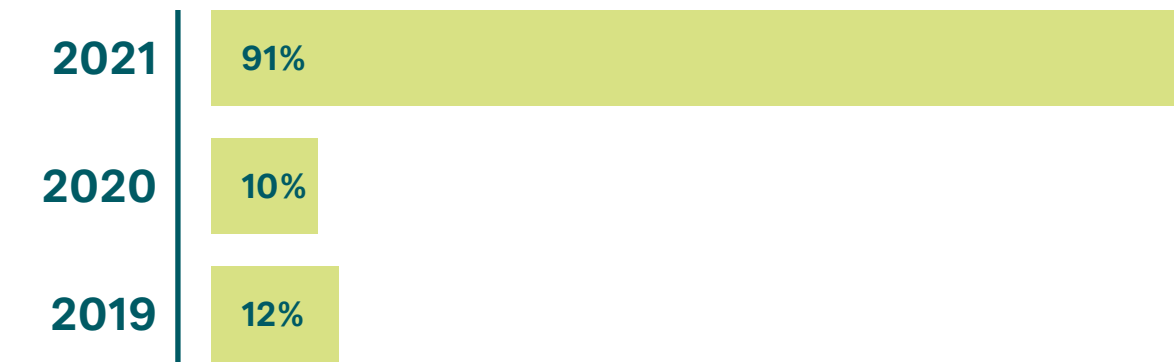
Environmental management systems play a key role in increasing the energy efficiency of BioNTech's overall operations. In 2021, the SHE department initiated a project focusing on the establishment and certification of an energy and environmental management system in accordance with ISO 50001 and ISO 14001. Additionally, third party-verified energy audits (DIN EN 16247-1) were conducted in Mainz, Idar-Oberstein, Berlin, Marburg and Martinsried. These audits identified energy use patterns and quantified the energy consumption of the buildings, processes, and overall systems examined.

Several energy saving measures were also identified. Such audits are an ideal starting point since they cover the planning phase of the ISO 50001, which requires other measures such as continued monitoring and improved energy efficiency. BioNTech intends to implement the ISO50001 requirements within the integrated management system in 2022 and have all existing sites certified accordingly within 2023.

Renewable Energy

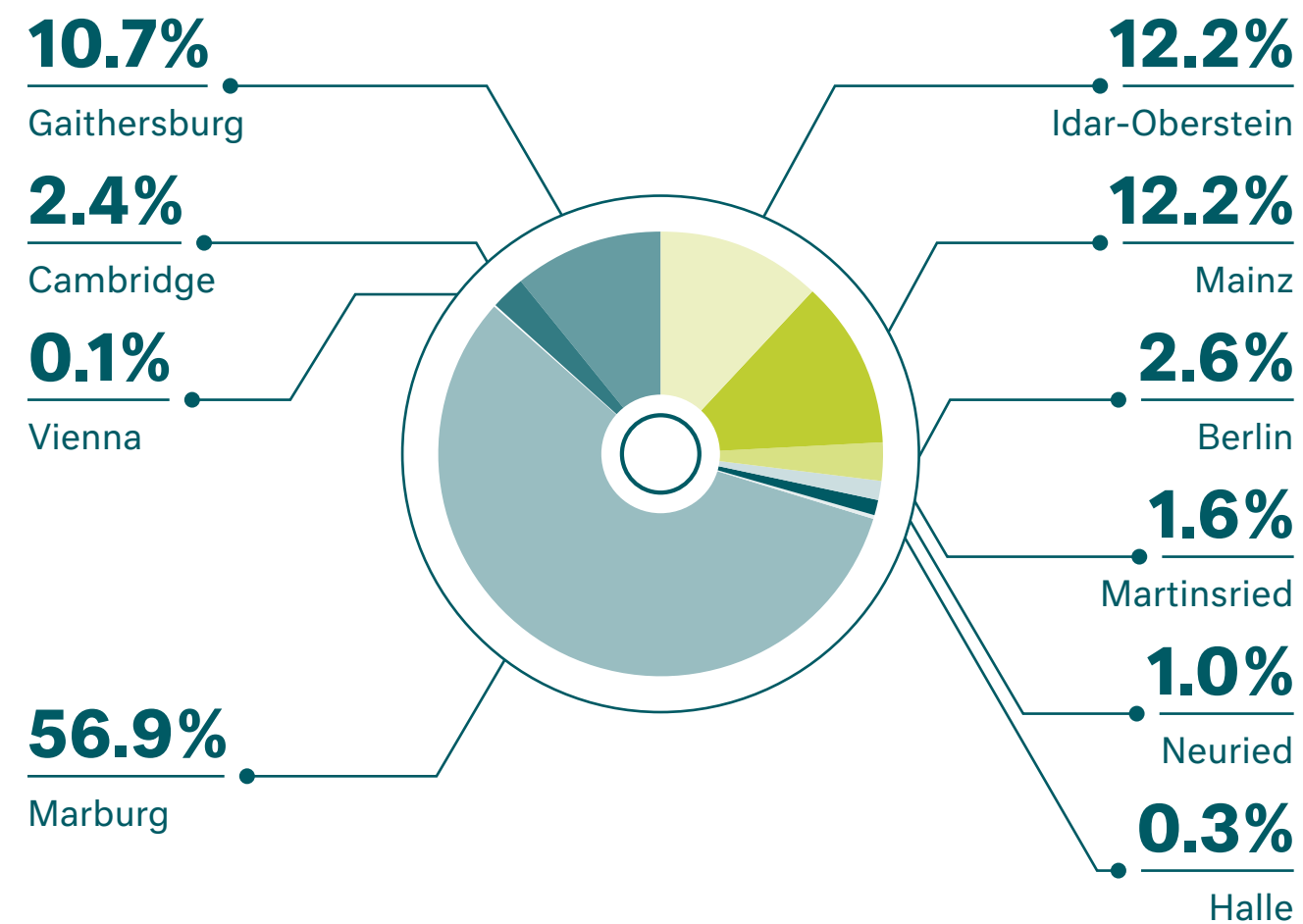
In 2021, BioNTech implemented initial reduction measures by switching its energy contracts to green electricity. All electricity supply contracts that can be directly influenced by BioNTech have been switched to green electricity.

Percentage of renewable electricity from purchased electricity



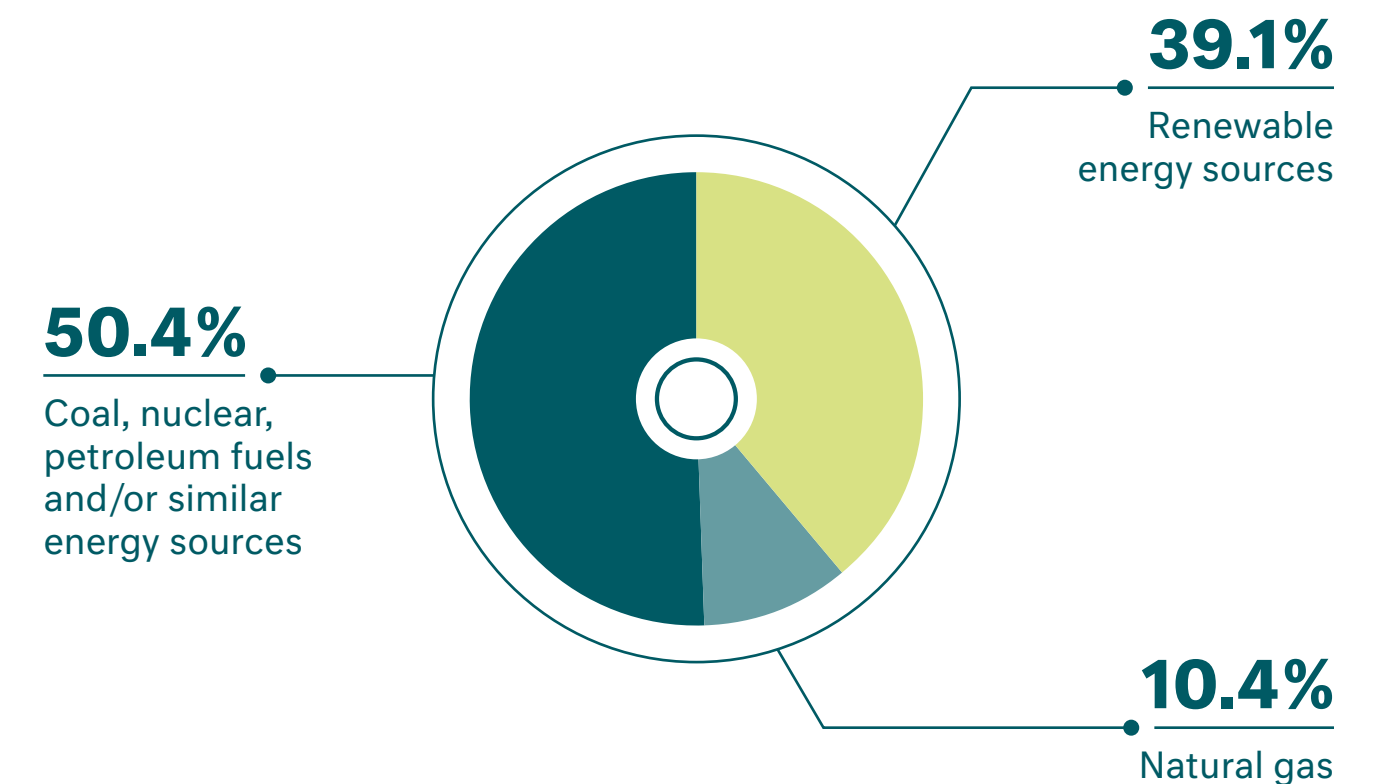
Emission split by location

Emissions (Scope 1 & 2) in % of t CO₂e



Total emissions in 2021: 100% = 3,223 t CO₂e;
Scope 2 market-based calculation

Energy use by source in 2021



Total energy consumption in 2021: 100% = 36,984 MWh

BioNTech currently has various contracts with different suppliers. The Company has already carried out initial analyses to find ways to further improve its climate impact and actively contribute to the energy transition. This has resulted in a focus on several measures,



which includes installing its own renewable energy plants in the form of photovoltaic systems and power purchase agreements (PPAs). In the long term, BioNTech aims to procure green electricity for a positive climate impact at all its sites worldwide. Regarding gas, BioNTech has signed gas contracts that offset emissions by purchasing CO₂-compensation certificates, where available, for all properties to which it has direct access.

5.4 WATER & EFFLUENTS

Climate change increases uncertainty about water availability and leads to an increase in extreme events such as droughts and floods. The number of areas faced with water scarcity is increasing worldwide. At the same time, industrial water pollution continues to further eradicate natural water sources. In an effort to mitigate the effects, the legal and regulatory requirements for protecting water are tightened on a continual basis.

According to the German Federal Environment Agency (Umweltbundesamt), there is no water stress in Germany so far. Despite the overall sufficient groundwater renewal rate, however, there are regional differences in water availability. This was evident in 2018 and 2019 when some areas had local or regional shortages. A continuation in consecutively dry summers, accompanied by low precipitation in winter would, in any case, have a negative impact on water availability. Water supply and water-related use, including commercial water transportation, could be affected. The World Wildlife Fund (WWF) points out that not only should domestic water resources be taken into consideration, but also the water risks imported from global production and supply chains.

In view of the further growth plans on continents such as Africa and possibly other continents, the availability and sustainable use of the valuable resource of water will become increasingly important. With scarcity and pollution on the rise, the ability to sustainably manage water and wastewater is the key to ensuring sustainable development and achieving the Sustainable Development Goals (SDGs). The objective of the Company's environmental management is to ensure sustainable water and wastewater management. The first step is therefore to ensure that local scarcities do not increase, and that the quality of natural water bodies does not deteriorate.

The ability to access sufficiently treated and affordable freshwater is crucial for BioNTech's facilities and could have an effect on the Company or its suppliers in the future. According to studies and current international developments, the issue of water scarcity is expected to become even more relevant. As part of BioNTech's corporate risk management, these potential risks will be carefully identified and evaluated – also in terms of their potential longer-term impact.

In 2021, a new wastewater treatment plant was planned and installed in Mainz and will commence operation in 2022. The plant will be used to treat the wastewater generated from our R&D operations. Another plant is already being planned for Marburg and will be installed in 2022.

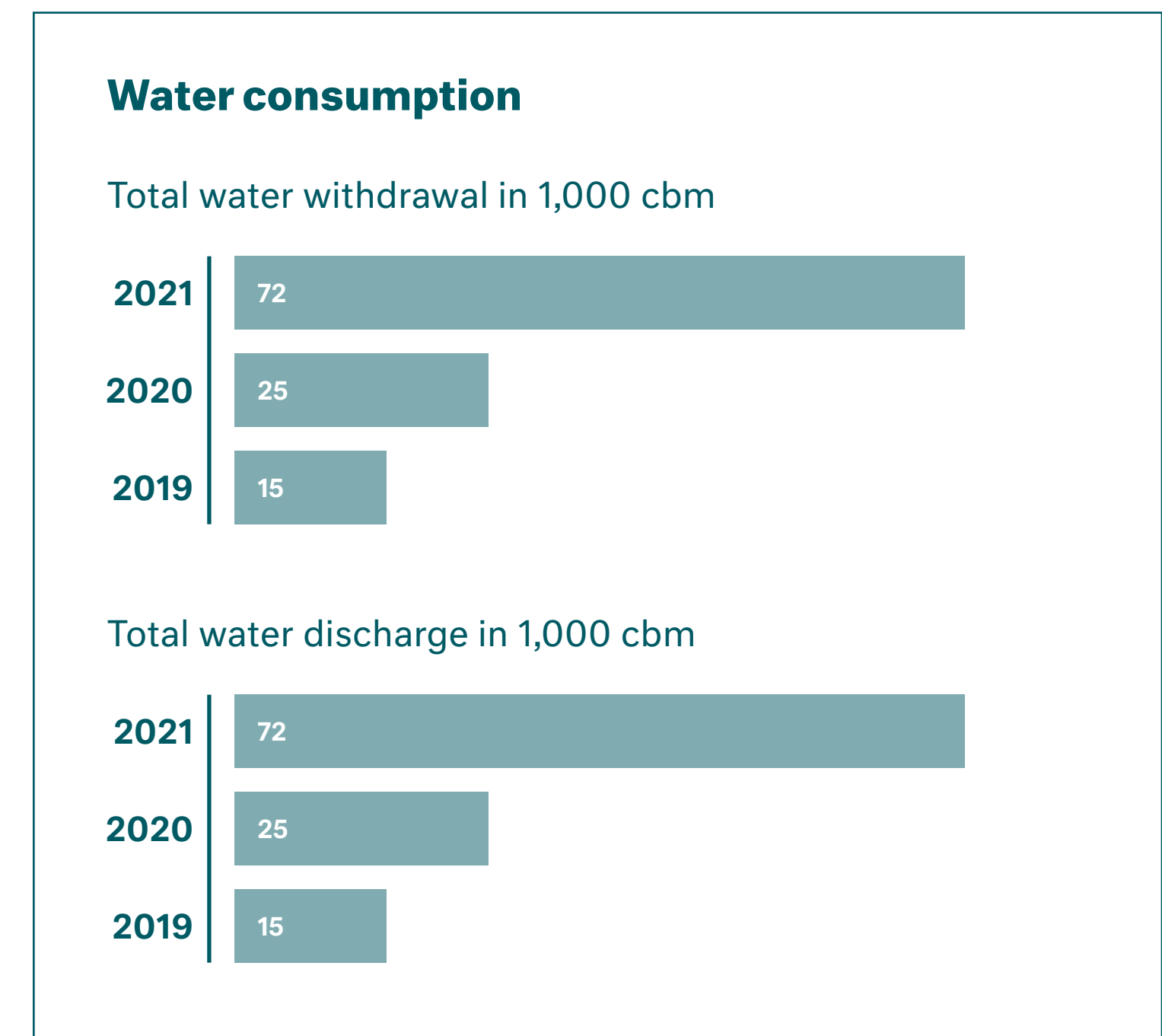
Water Withdrawal

In 2021, BioNTech operated only in regions where, according to the water risk mapping tool [Aqueduc](#) from the World Resources Institute, the percentage of the population without access to improved drinking water sources was low (0-1) or low-medium (1-2). The Company ensures that it monitors its water consumption on an annual basis, using the water invoices for each site.

Water Consumption

BioNTech's total water consumption increased by 191% between 2020 and 2021. Due to BioNTech's significant growth in 2021, additional staff had to be hired, laboratories and offices were added, and new facilities were developed and acquired. The data highlights the need for the targeted monitoring of this issue, as well as the potential risks to the environment and BioNTech in the future.

BioNTech's longer-term ambition is to implement the Science-Based Targets for Water, once BioNTech has identified an appropriate methodology. This will then become a part of the SHE management system.



Wastewater Effluents

Similar to its monitoring of water consumption, BioNTech also closely monitors the discharge of the wastewater produced. Apart from usual greywater and blackwater from offices and other administrative establishments, wastewater is generated in the Company’s research and development laboratories and production.

There are internal guidelines and mandatory procedures on how to deal with pharmaceutical wastewater as it must not be discharged regularly into the municipal sewer system in order to avoid the possible entry of chemicals and substances hazardous to water bodies and the surrounding environment.

Since BioNTech sites are all situated in countries with strict legal and regulatory requirements for wastewater handling, its wastewater is subject to strict monitoring and analysis before being discharged into special disposal channels. In addition, neutralization systems for wastewater are operated at some sites before the wastewater can be discharged into the municipal sewage system or treatment plant.



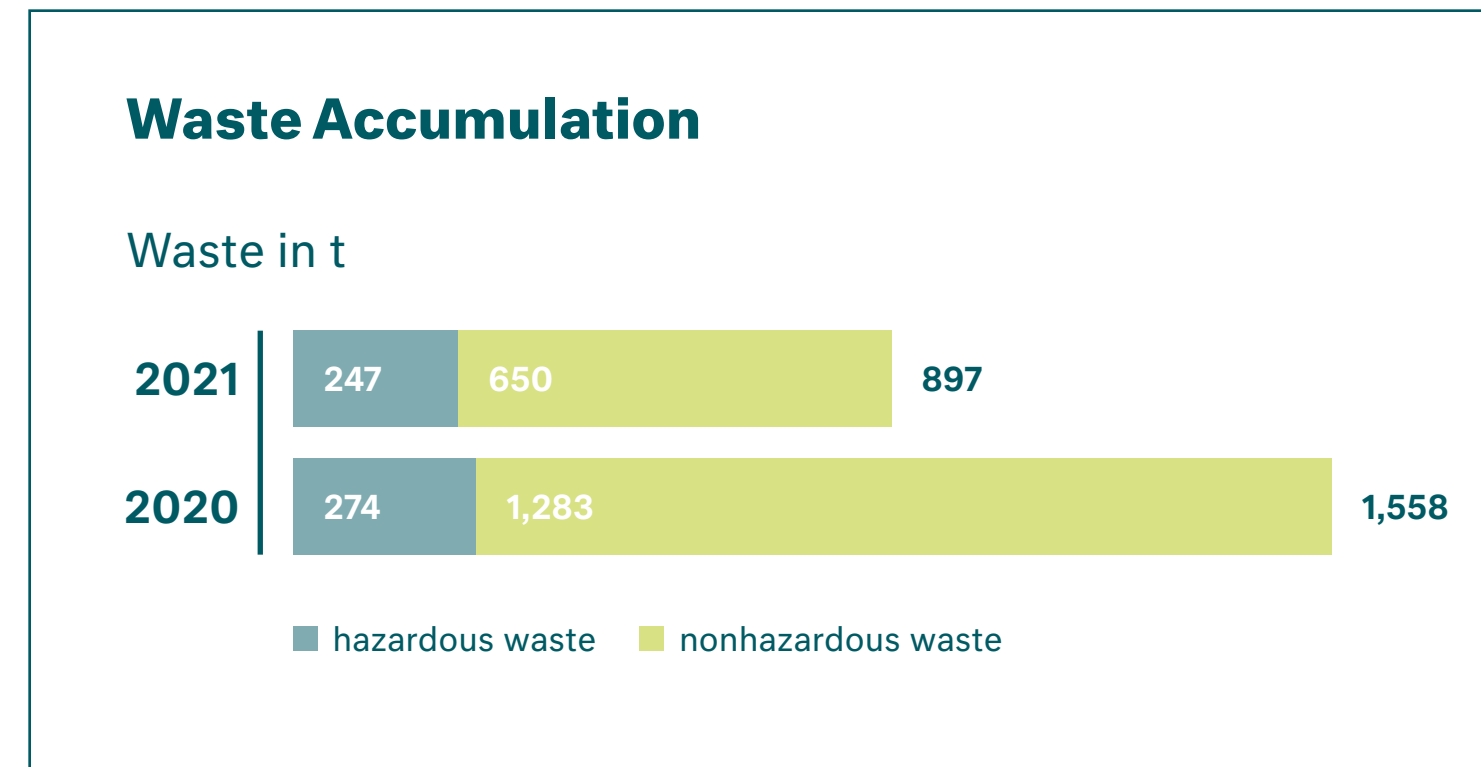
BIONTECH ATTACHES GREAT IMPORTANCE TO WASTE PREVENTION AND PROFESSIONAL WASTE DISPOSAL.



5.5 WASTE

BioNTech attaches great importance to waste prevention and professional waste disposal – especially when it concerns hazardous waste. Waste management is part of the BioNTech Group’s environmental management system. The Group’s standards are implemented at the respective sites. The process for this is described in the internal operating procedures and mandatory work instructions. Disposal service providers are selected with great care, and disposal conditions are contractually defined. Each service provider must provide evidence of the proper disposal of waste.

BioNTech generated 896.7 t of waste in 2021 (2020: 1,557.5 t; 2019: 371.4 t). Of this amount, 93.5% was thermally treated.



Reuse of raw and auxiliary material

The BioNTech site in Mainz, as well as sites at other locations, have developed an internal system for the reuse of raw and auxiliary materials. As part of this system, unused raw and auxiliary materials and material residues from operations can be reused by the research and development departments in the laboratories and as residual quantities for research purposes. An exchange system has also been established in the research and development departments in Mainz. Employees who need raw and auxiliary materials, even in just small quantities, can contact their colleagues from other departments to ask whether it is still in stock before reordering. A mailing list is provided for this purpose.

Hazardous Waste

At least 27.5% of BioNTech’s waste in 2021 was hazardous waste and needed to be incinerated at special plants and thermally treated. Hazardous waste is inherent to BioNTech’s industry, and the Company cannot completely avoid it. To prevent endangering people and the environment, BioNTech makes both waste prevention and the professional disposal of waste and hazardous waste a priority. To ensure it accomplishes this, the Company selects disposal service providers with the utmost care and defines the disposal conditions contractually. Each of BioNTech’s disposal service providers is required to prove that they properly disposed of the Company’s waste.



Audits of disposal facilities are also carried out, for example, to ensure that BioNTech is monitoring the treatment processes.

BioNTech expects its disposal facilities to

- have an implemented and certified environmental management system;
- comply with all applicable safety and environmental laws and regulations;
- have an implemented and certified occupational safety management system; and
- have the permission to transport, store, dispose and further use the generated waste.

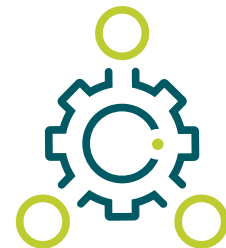
Requirements for BioNTech's disposal



certify



comply



implement



permit

5.6 SUPPLY CHAIN MANAGEMENT

With the increasing importance of environmental and climate protection issues, BioNTech expects its suppliers to adhere to standards comparable to those in the BioNTech Code of Business Conduct & Ethics. The standards in the Supplier Code of Conduct are based primarily on the Pharmaceutical Industry Principles for Responsible Supply Chain Management of the Pharmaceutical Supply Chain Initiative (PSCI).

BioNTech expects its suppliers to

- have an implemented and certified environmental management system;
- act in an environmentally friendly and efficient manner and minimize negative impacts on the environment;
- preserve natural resources and avoid the use of hazardous substances wherever possible;
- explore the possibility of participating in reuse and recycling activities;
- comply with all applicable environmental laws and regulations;
- have systems in place to ensure safe recycling or handling, movement, storage, reuse or disposal of waste, air emissions and wastewater discharges;
- have systems implemented to prevent and mitigate accidental spills and leaks into the environment; and
- provide comparable supplier declarations to their suppliers.

The Supplier Code of Conduct will become part of the contractual basis for future suppliers and existing suppliers will also retroactively agree to the Code. The screening process has not yet started.

6.0 Attractive Employer

Fostering the full potential of all employees

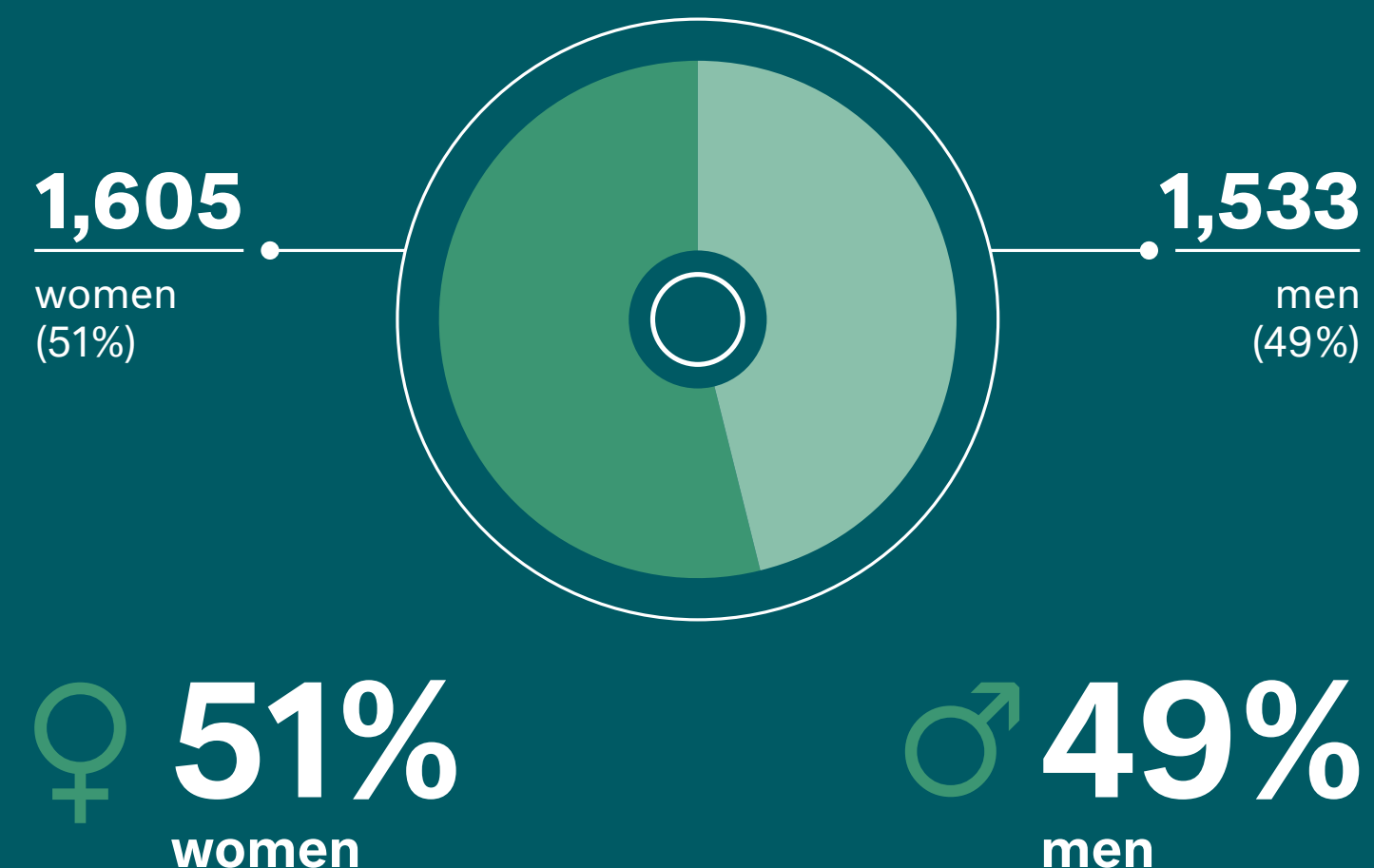
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For our employees:

We are creating an environment where everybody feels respected and valued and can grow to his or her full potential.

3,138 employees
from over
60 nations

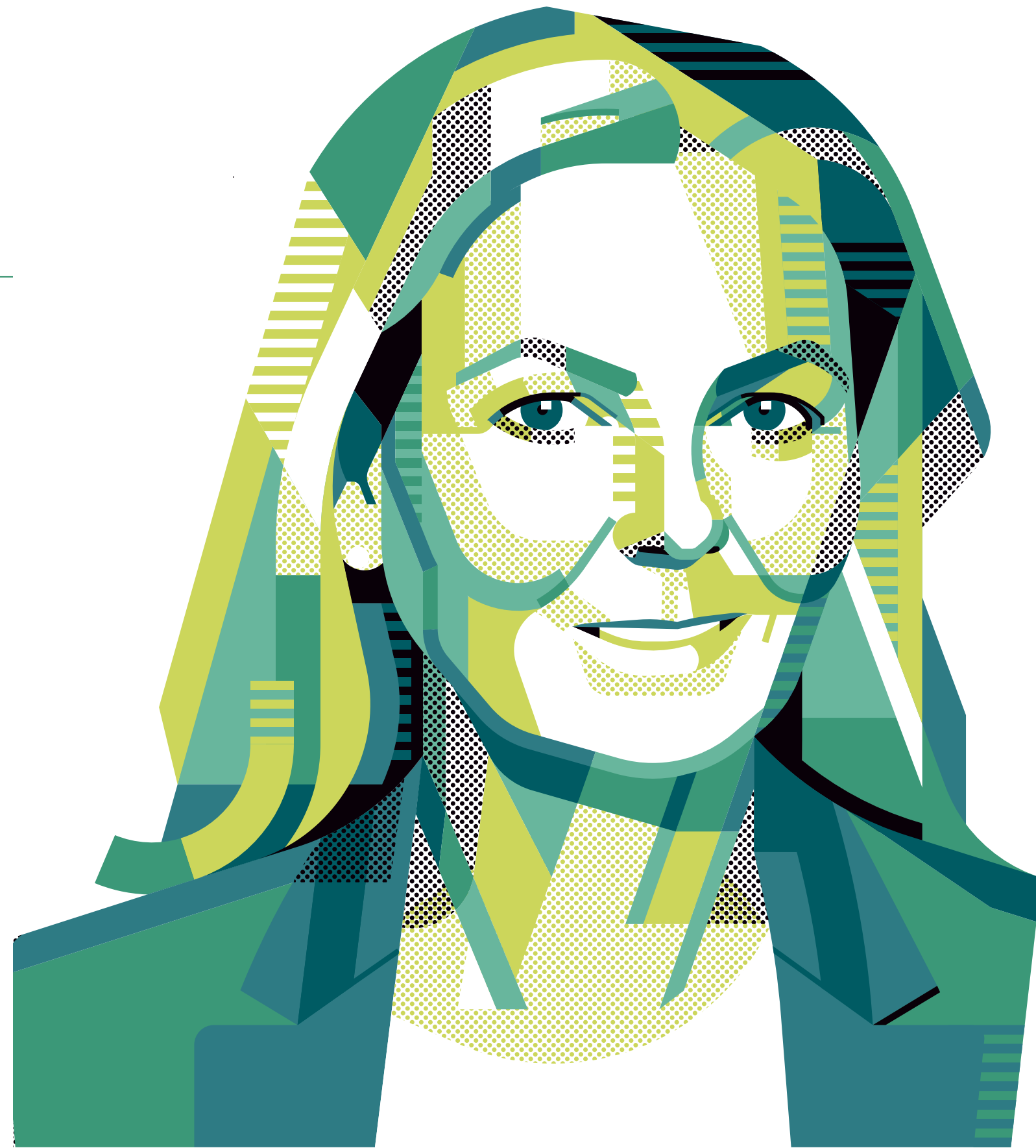
43%
women in highest management level
below Management Board



1,372
new hires in 2021

6.6%
total turnover
rate in 2021





ANA-CRISTINA GROHNERT
Chairperson of the
Diversity Charter

Chairperson of Charta der Vielfalt (the Diversity Charter) since 2013, with extensive experience in finance and risk management, Ana-Cristina Grohnert is a professional of human resources and company strategies. In her previous positions, she worked at major financial institutions and firms, like Ernst & Young and Allianz Deutschland AG, and currently sits on the Advisory Board of GFG Alliance. Additionally, she works as an author, investor and mentor. She promotes a new approach to management that harnesses the power of diversity in the workforce.



WHAT OUR STAKEHOLDERS TELL US

MAKING DIVERSITY A MATTER OF CULTURE

“The Diversity Charter as an organization and I personally look at issues of diversity and equal opportunity primarily from a cultural perspective. Crafting an inclusive, open corporate culture is critical for any company to succeed in the 21st century – and even more so for those that rely heavily on innovation for their core business.

Doing so requires companies to first come up with a people management and training approach that is digital and decentralized. Employee management should be data-driven; diversity and anti-discrimination topics must be a central component of digital trainings. Second, for companies to live up to the heightened expectations around mental health, they need to create a digital offering that supports employees through every situation in life. Numerous startups can help build such an integrated platform, providing services from continuing education to child- and healthcare to corporate volunteering. Lastly, issues of diversity and inclusion must be made an integral part of corporate communication, with key messages being placed by management itself. By clearly and credibly communicating the commitment of the executive level, an inclusive, innovative corporate culture becomes a matter of course.

BioNTech finds itself in a comfortable starting position to build its employer brand and boost the inclusive, innovative culture that lies at the heart of the company. Most importantly, its key stakeholders are united by a shared interest in creating social purpose. Operating in an exciting field and offering meaningful employment opportunities, BioNTech has a good basis for attracting and retaining employees. If there is one piece of advice I would give, it would be to not follow the big companies – neither in their mistakes, nor in their competencies. BioNTech should aim to be just as innovative in its culture and people management as it is in its core business.”

This Stakeholder Statement does not represent the views of BioNTech and has not been influenced by BioNTech.



6.0 Attractive Employer

6.1 VISION & VALUES

We are a fully integrated global biotechnology company specializing in the development of novel medicines at the intersection of immunology and synthetic biology. BioNTech stands for visionary thinking and a pioneering spirit.

The Values

Innovation and innovative thinking in all areas of BioNTech's activities are the cornerstones of its success. Passion and enthusiasm guide the Company's employees in their work. Common unity forms BioNTech's foundation so it can reach its goals. These values define the Company's identity and provide cultural guidance.

Relevance and Materiality

Since BioNTech's founding in 2008, it has focused on harnessing the power of the immune system to address human diseases with an unmet medical need as well as major health burdens. BioNTech's employees – known as “pioneers” within the Company – are a key success factor in achieving this objective.

Their great importance is reflected in BioNTech's CSR strategy. The topics of Pioneer Pipeline, Pioneer Development, Health & Safety, Equal Opportunity and Non-Discrimination were identified as highly relevant CSR topics. As a result of the CSR materiality analysis (see [Chapter 3.2](#)), they are grouped in the “Attractive Employer” field of action. BioNTech has classified the optimized recruiting of talent and efficient succession planning (“Pioneer Pipeline”) as material topics.

6.2 HUMAN RESOURCES MANAGEMENT

Functions within Human Resources

The dynamic development of BioNTech, with its strategic and operational challenges, required a strengthening of the HR function. To this end, extensive analytical, strategic and conceptual work has started in the 2021 financial year under the heading HR 2.0 (see [page 66](#)).

Based on these efforts, a novel Human Resources operating model with three pillars will be implemented in 2022: (a) Business Partnering, (b) Centers of Excellence (CoE) and (c) HR Servicing & Systems. The objective is a more efficient and better aligned organization of the functions. This new structure will comprise and evolve from the following existing areas:

- The **HR Talent Acquisition** function organizes the recruitment process from the identification of suitable candidates and the selection process, all way through contract signature. Crucially, this functional area works to fill open positions with the right employees in a timely manner. Given the Company's dynamic development, steps have been taken as a matter of priority to further improve processes to manage the growth.
- The **HR Business Partnering and the People Management** functions provide support to both managers and employees, offering value-added HR services and HR guidance. The focus is on supporting organizational changes, acting as a sounding board for the leaders, and addressing day-to-day questions and challenges, thereby making a significant contribution to retaining the right employees for the long term.

→ The **Learning & Development** function supports learning within the organization for the personal and professional development of employees. A strong focus lies on the development of BioNTech's current and future leaders. Furthermore, via various education programs, in-house training, and support for trainees (Vocational training of the German Chamber of Industry and Commerce, IHK) and scholarship recipients, BioNTech supports its employees to prepare and qualify for future tasks.

→ An **HR Total Rewards** function develops and administers a Group-wide consistent, fair and nondiscriminatory compensation and benefits framework that enables BioNTech to succeed in a highly competitive market.

→ The **HR Labor Law** function ensures that BioNTech complies with all labor laws and industrial constitutional law requirements. This function is also responsible for all aspects concerning equal opportunities and anti-discrimination.

All functional areas are managed by experienced HR managers. The Senior Vice President Human Resources and the HR Leadership Team are responsible for developing a strategic, global People Plan and People Vision for BioNTech while at the same time addressing short- and mid-term challenges within this dynamically growing company.





LAURA-KATRIN SEITZ
Senior Vice President,
Global Head of HR

BioNTech has a unique success story; and this success rests on its people and the way they work together. This makes BioNTech's ability to attract, develop, and retain talent of paramount importance. Reflecting this focus, and in consideration of the organization's future growth, Laura-Katrin Seitz joined BioNTech as Senior Vice President, Global Head of HR, effective February 1, 2022. Her mission is to further build and strengthen the HR function as a strong enabler for ongoing success.



DIVERSE TEAMS ARE A DRIVER FOR INNOVATION.



What is your vision for HR?

My vision is to go beyond our HR mission to attract, develop and retain the right talent for BioNTech. We want to go a step further by helping to create an environment where everybody feels respected and valued and can grow to his or her full potential – in a sustainable way. If we succeed in this, we will strengthen the employees and BioNTech alike.

How do you want to achieve this vision?

I want to tackle this great challenge with the many outstanding people on my HR team and all the employees who approach the Company's vision every day with incredible passion, innovative ideas, and collegial unity. Making this vision come true requires action in multiple areas. The best way to describe the journey is to look at the steps that we will be taking.

The first step will be to strengthen the HR organization, stabilize existing processes and systems. This is what we are doing right now. Given the Company's growth, the special focus in this phase is on talent attraction and how the HR department partners with leaders and employees across BioNTech.

The second step will be to redesign existing practices and introduce new ones. In doing so, a comprehensive look will be taken at everything that is being done across the Company in the people and culture space. The guiding question for anything developed will be how well it contributes to BioNTech's vision and mission, and how well it nurtures its unique and aspired culture? Best practices are good reference points, but instead of just copying those, the goal would be to design novel approaches that fit BioNTech's specific ways of working.

What are the key strategic themes on your agenda?

At this stage, there are three key themes on my agenda:

- 1. Manage the growth of BioNTech's workforce.** For example, the recruiting process is currently being strengthened and robust onboarding put in place to make sure new recruits have a good experience during their first few weeks and months and can integrate quickly wherever in the world they join BioNTech and regardless of whether they work remotely or on campus. Leaders are also supported in taking over people management responsibilities for the first time and in assuming larger responsibilities.
- 2. Leverage diversity and provide a truly inclusive environment.** Diverse teams are a driver for innovation, they make better decisions and are simply enjoyable to work with! Going forward, the Company's ambition is to become even more diverse. The way to achieve this will be to embed the focus on diversity, equity and inclusion in BioNTech's HR practices and understand and overcome any potential biases.
- 3. BioNTech's ways of working and how the Company will consciously evolve its unique culture.** This includes getting smarter at organizing and allocating resources, and improving the ways of working.



Human Rights

BioNTech complies with the Universal Declaration of Human Rights and the Fundamental Labor Rights as stipulated by the International Labour Organization’s Declaration of Fundamental Principles and Rights at Work. The Company avoids causing or contributing to adverse human rights impacts through its own activities and would address them if given. BioNTech aims to prevent or mitigate any adverse impact on human rights that is directly linked to its operations, products or services, or that may arise from its business relationships, even if such relationships have not contributed to such impact.

In the Supply Chain

Based on the Supplier Code of Conduct (see [4.3 Supply Chain & Human Rights](#)), BioNTech does not partner or conduct business with any individual or company that participates in

- forced, bonded or indentured labor or involuntary prison labor;
- the exploitation of children (including child labor defined in the ILO Convention No. 138 on minimum Age and the ILO Convention No. 182 on the Worst Forms of Child Labour);
- harassment or discrimination;
- harsh or inhumane treatment, including any sexual harassment, sexual abuse, corporal punishment, mental or physical coercion or verbal abuse of workers or the threat of any such treatment;
- human trafficking or any form of modern slavery.

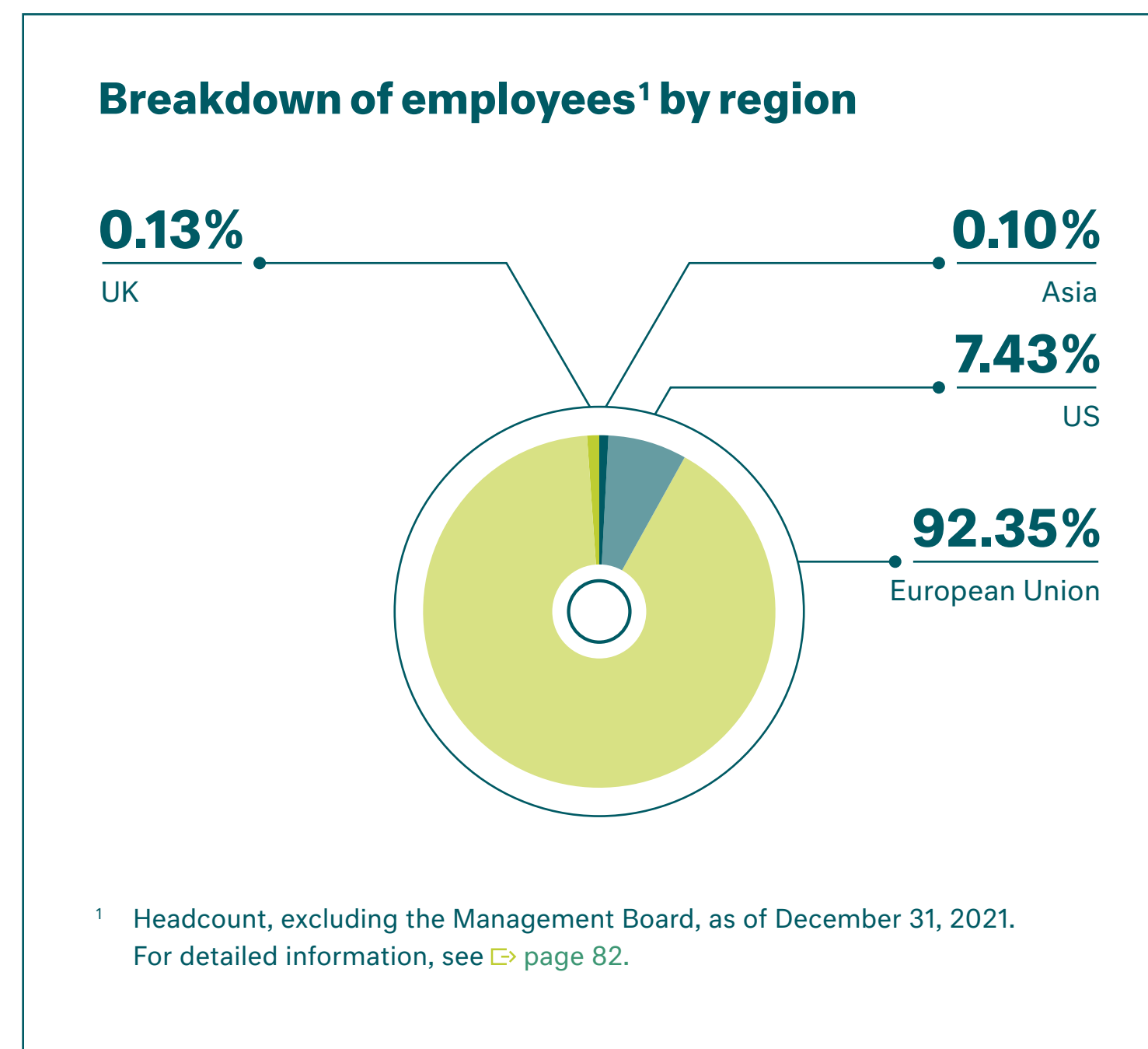
BioNTech expects suppliers and partners to

- pay workers according to applicable wage laws, including minimum wage, overtime and mandatory benefits;
- respect the rights of workers in compliance with local laws to associate freely, join or not join labor unions, seek representation, or join workers’ councils; and
- protect their workers’ health and safety.

As described in Chapter [4.3 Supply Chain & Human Rights](#), BioNTech is preparing for an individual approach to continuous human rights due diligence (HRDD) as of May 2022. Appropriate internal resources (budgets and personnel), as well as external support from a consulting agency specializing in human rights due diligence, were organized in 2021 and will become available in May 2022.

Freedom of Association

BioNTech respects the rights of every individual and is committed to complying with the labor laws in the markets where it operates. Over 92% of employees work within the European Union and are subject to the strict EU workplace regulations of this market.



BioNTech complies, at a minimum, with the provisions of the ILO Core Labour Standards Nos. 87 and 98 on freedom of association and the right to collective bargaining, without prejudice to more favorable national regulations. The Company confirms this by being a signatory of the UN Global Compact, in which these freedoms are explicitly named in Principle 3.

Suppliers are expected to comply with the Supplier Code of Conduct’s provisions on freedom of association and the right to collective bargaining (see [4.3 Supply Chain & Human Rights](#)).

BioNTech employees have the right to form and join employee organizations of their choice. Employee organizations are allowed to act independently of the employer. BioNTech supports these activities by giving employees adequate access to the information, resources and means necessary to carry out their duties. There are works councils in Mainz, Marburg, and Idar-Oberstein, as well as a Group Works Council. In 2021, a works council was established at JPT Peptide Technologies GmbH, Berlin, Germany, a 100% subsidiary of the BioNTech Group.

Employees have the opportunity to voice their concerns to the Company individually or collectively without fear of reprisal. This is ensured through regular town hall meetings, “Ask us anything” formats and staff meetings (“Betriebsversammlungen”). Questions are typically answered directly by the responsible Management Board member.

Comprehensive information on these employee rights is provided to employees, in particular via the intranet. Every employee has access to BioNTech’s compliance tool, BxP Hub, which gives employees the opportunity to report potential violations of the Code of Conduct, internal guidelines or laws. Reports can be submitted confidentially.



6.3 PIONEER PIPELINE

As described in [Chapter 6.2 HR Management](#), optimizing talent sourcing and talent acquisition is the responsibility of the HR Talent Acquisition function. The entire recruiting process is based on binding guidelines that enable effective, efficient, legally compliant recruiting in accordance with all data protection standards.

At the operational level, a recruitment team is responsible for the implementation. During the recruiting process, the team ensures that all applicants are treated fairly and according to objective and comparable criteria and that there is no discrimination. Recruitment managers are available to employees and managers at all locations as a point of contact and recruiting service.

Total number of new employees (as of December 31)



2021: Significant Changes in Recruiting

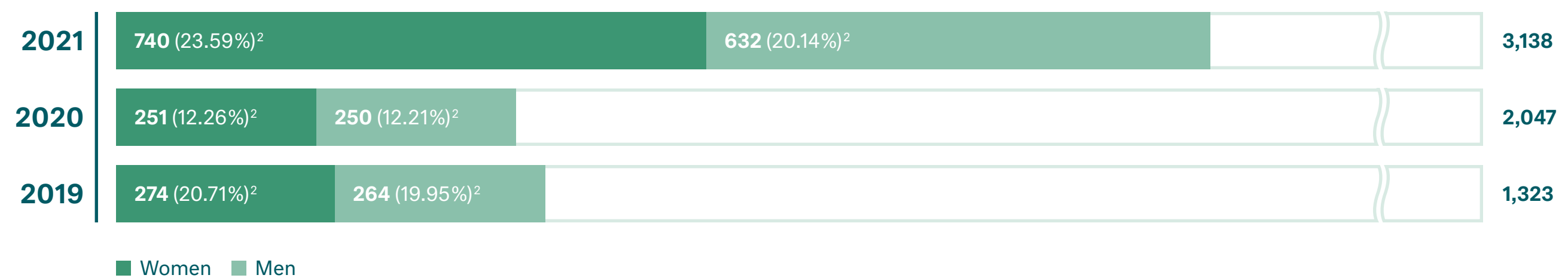
As in the previous year, 2021 was characterized by strong growth. 1,372 employees were sourced, selected, hired and integrated into the Company by the HR department in 2021, representing a year-on-year increase of approximately 300%. To help accomplish this, the efficiency and scalability of the recruiting process were improved and, for the first time, candidates were recruited from new geographies such as China, Singapore, Turkey and the UK. Globally, more than 52,000 applications were processed in 2021 (2020: >26,000). BioNTech further optimized its sourcing strategy while maintaining a focus on the quality of applicants, who must be persuasive from both a professional and personal perspective. The Company also strengthens its recruiting process and measures on an ongoing basis to ensure that prospective employees are also a cultural fit (see [Chapter 6.5 The Culture Campus](#)).

Development of new hires¹

By age group



By gender



By region



¹ Headcount, excluding the Management Board, trainees and interns, as of December 31, 2021.

² Formula for calculating the rate of new employee hires as a percentage: Total number of new employee hires divided by number of employees as of December 31, 2021. For detailed information, see [page 81](#).



To cope with the strong growth, the Global Talent Acquisition Team was reinforced by increasing its size and filling capability gaps (upskilling), which included hiring globally in new geographies. Through its own actions, as well as through the commercialization of the COVID-19 vaccine, BioNTech strengthened its employer branding and brought down employee turnover.

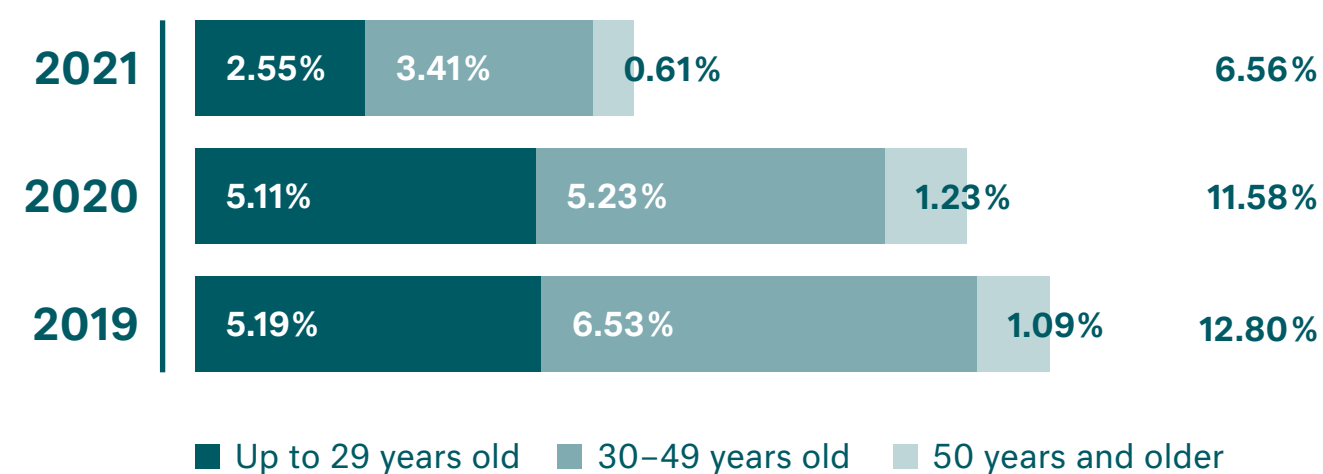
Employee Turnover

BioNTech’s aim to reduce the employee turnover rate in the medium to long term and become the employer of choice in the highly competitive labor market. That was documented in the Sustainability Report 2020. In financial year 2021, BioNTech succeeded in significantly reducing turnover from 11.6% (in 2020) to 6.6%. In addition, there were no layoffs or job cuts at BioNTech or at the companies acquired in 2021.

Total turnover rate¹

6.56% 2021 **11.58%** 2020

By age group



¹ Turnover rate is calculated as follows: Total number of leavers from the past twelve months divided by the quarterly average employee headcount (see table on page 82) multiplied by 100.

Overview of benefits¹



¹ The availability, eligibility and structure of the listed benefits apply only to locations in Germany and may vary per location. The explicit requirements for the individual use of benefits are based on the Company’s internal regulations.

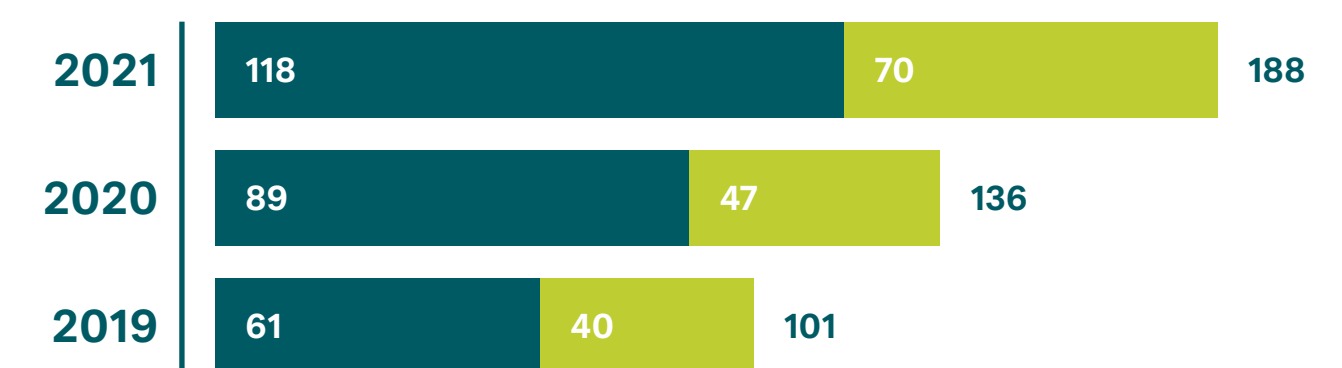
Professional employee support during the pandemic

Since 2020 and throughout 2021, BioNTech has offered daily, three-hour virtual childcare for school-age children between the ages of six and twelve. The usual cap of twelve days off per year for direct childcare through pme Familienservice has been suspended due to the COVID-19 pandemic. The objective of the childcare offer is to

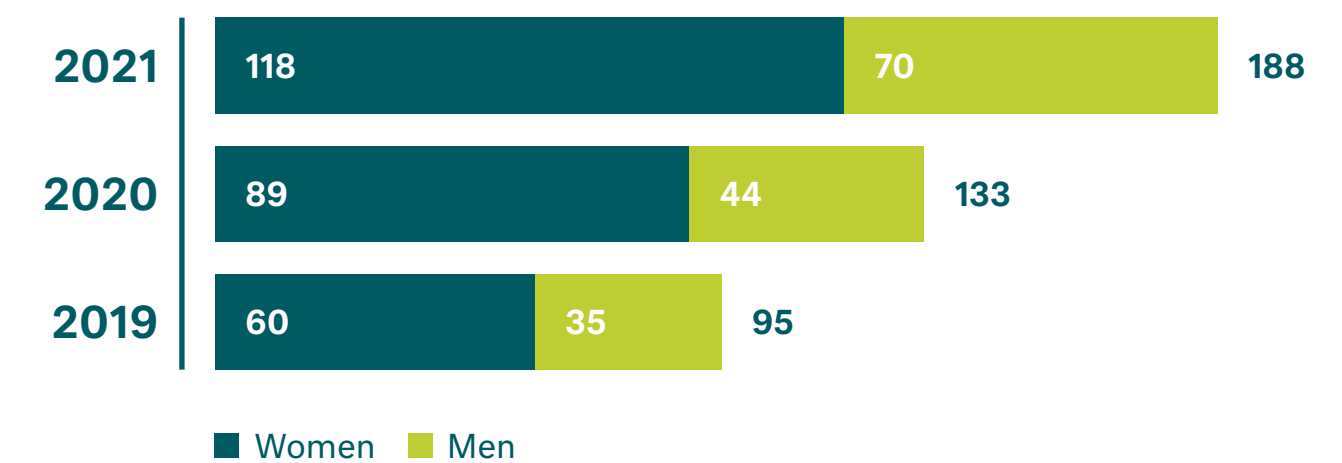
give relief to parents working from home, provide educational activities for the children and offer opportunities for social interaction.

In the case of a childcare emergency, where employees need immediate assistance when alternative support cannot be organized, backup childcare days are provided through pme Familienservice. Backup childcare days can be taken virtually or in-person at a backup facility, depending on the child’s age.

Number of employees entitled to parental leave



Number of employees who took parental leave



For detailed information, see page 83.



6.4 PIONEER DEVELOPMENT

At the end of 2019, the entire Training & Development function was repositioned and has been available to all employees since the beginning of 2020 as the “Learning & Development” function. This was preceded by extensive employee surveys and the consideration of developments in the world of work and learning. The findings showed that a holistic learning landscape with innovative, dynamic and individualized learning opportunities was necessary to prepare employees for current and future challenges. Training will continue to play an important role but will be strongly complemented by new learning formats. In the years ahead, the focus of the Learning and Development (L&D) function will be more on active, effective, continuous learning, which is differentiated in more detail in BioNTech’s vision statement (see highlight on the right).

Learning and Development

BioNTech offers a comprehensive program to improve competencies and supports employees with internal and external training opportunities. In the area of Learning and Development, current training offers consist primarily of courses that support and enhance employees’ soft and human skills. As a rapidly growing and globally active company, special emphasis is also being placed on leadership development and coaching. In 2021, 446 training hours in 81 trainings and courses were offered centrally by L&D and conducted in the field of leadership development with 916 leaders participating (participants may have taken part in several trainings).

In addition to specialist external training, language courses and remote working training are offered. Comprehensive professional development courses, such as degree programs, technician or master’s courses with a minimum duration of one year, lead to certificates of further qualification. For the target group of all employees, 707 training hours in 60 trainings and courses were offered centrally by L&D and conducted with 720 employees participating.

OUR VISION: WE EMPOWER OUR PIONEERS TO CONTINUOUSLY DEVELOP THEIR COMPETENCIES AND GROW BY OFFERING THEM INDIVIDUALIZED LEARNING JOURNEYS AND INNOVATIVE LEARNING EXPERIENCES, EMBEDDED IN THEIR FLOW OF LIFE.

In July 2021, the Company launched a voluntary digital learning experience platform with access to LinkedIn Learning courses and additional learning content providers. The platform offers a total of 16 relevant content providers with more than 20,000 different courses, including courses in seven languages. Since its launch, the platform has greatly expanded the existing face-to-face training for leadership development and learning services for all employees. BioNTech additionally produces its own internal learning content, which it also makes available on the platform. As of December 2021, the platform had 1,592 active users, 9,540 viewed learning courses and 7,930 completed learning elements. In 2022, a new platform will be implemented to expand the global online language learning offers.

The average cost of the central L&D offering per employee (annual average) is EUR 158. The data from other training courses that are organized and financed by the departments is not currently covered.

The measures to strengthen HR management in 2021 laid the foundations for even more strategically oriented education management in 2022.



Employee Equity and Restricted Stock Unit Plans

Without BioNTech's employees, the development and approval of the COVID-19 vaccine would not have been possible. This scientific and entrepreneurial achievement has had a positive economic impact on BioNTech. In recognition of these achievements, in December 2020, BioNTech's Management Board and Supervisory Board approved the adoption of the BioNTech 2020 Employee Equity Plan for employees in Europe and the BioNTech 2020 Restricted Stock Unit Plan for employees in the US (together referred to as the "Plans"). All employees employed by BioNTech in Europe and the US are eligible to participate in the Plans, with awards under the Plans being made in 2021 and 2022. The Plans are long-term in character and intended to motivate employees to commit to BioNTech for the long term. Under the Plans, employees receive restricted stock units (RSUs) free of charge and, after the relevant vesting periods applicable to the Plans have been satisfied, the vested RSUs can be settled in existing BioNTech's American Depositary Shares (ADSs), which are traded on the Nasdaq stock exchange. BioNTech also has the option to settle the RSUs in cash instead of ADSs, after the expiry of the relevant vesting period. Detailed descriptions of the 2020 Employee Equity Plan and the US Restricted Stock Unit Plan are published in the S-8 SEC Filing on the website of SEC as well as on the [website of BioNTech](#).

6.5 SUSTAINABLE GROWTH & CULTURE: THE CULTURE CAMPUS

BioNTech's corporate culture has been one of its key success factors over the last decade and remains essential for its continued innovation engine and execution to bring new medicines to people. Both the Management Board and Supervisory Board recognize that maintaining the Company's founding corporate culture, exemplified by "Project Lightspeed" that led to the rapid and successful development of its COVID-19 vaccine, is a fundamental component of BioNTech's strategy for managing its anticipated future organizational growth.

A strong sense of purpose, a focus on embracing contribution, and responsiveness are key elements of BioNTech's strong corporate culture.

The importance of corporate culture has led to the establishment of the "Culture Campus", a project team within BioNTech reporting directly to senior management, that is focused on codifying, sensing, shaping, implementing, safeguarding, developing and communicating BioNTech's corporate culture. The Group has spent considerable effort to identify the key components of the Company's current culture through empirical social research, including employee focus groups, research, and structured feedback loops. Based on this data-driven process, the key elements of the corporate culture have been identified: a strong sense of purpose, a focus on embracing contribution, and responsiveness.

Scientific rigor, innovation and passion drive BioNTech's spirit. The Company encourages employee self-confidence and provides the ambition needed to be pioneers and break boundaries, as well as to take time to celebrate personal achievements. Standing united is a key component of BioNTech's culture, focusing on collaboration, teamwork, and a learning culture that views both successes and mistakes as opportunities for growth. Despite the Company's significant growth, it is committed to staying agile, which is crucial to innovation, efficiency, and recognizing possibilities and opportunities. BioNTech also remains accountable, acting with integrity and making decisions based on sustainability, values and scientific data.

BioNTech is highly recognized in Germany as well as globally. Many employees identify strongly with the Company's vision and draw inspiration from its strong corporate culture. Because of this, BioNTech is considered an attractive employer globally both for scientific as well as operational and administrative roles.



6.6 EQUAL OPPORTUNITIES & DIVERSITY

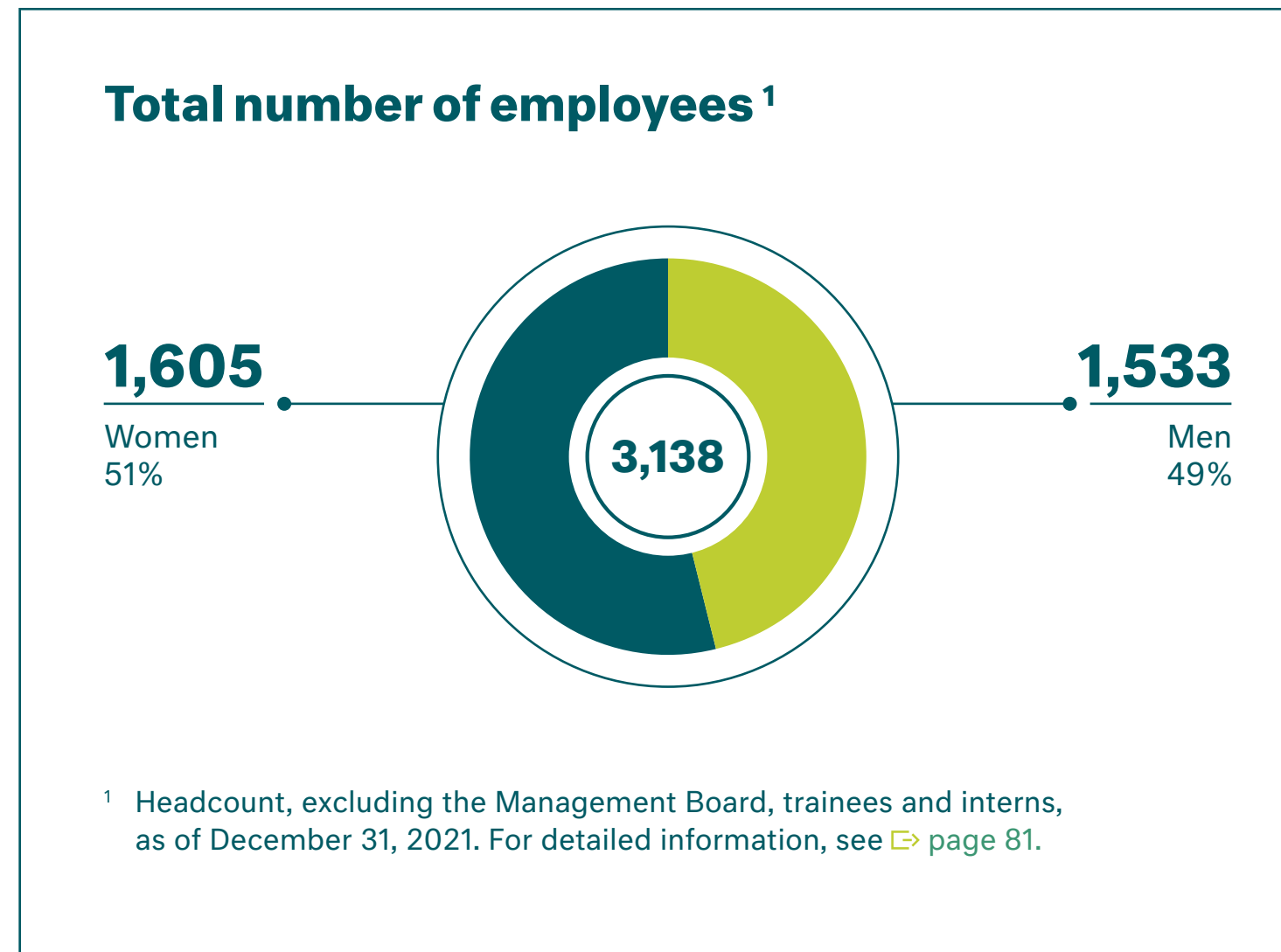
Equal Opportunity & Non-Discrimination

BioNTech has employees representing more than 60 nationalities. The Company's history shows that different cultures and perspectives enrich the Company and contribute to its success. Diversity is therefore understood as a valuable aspect of the corporate culture and promoted. Since November 2018, BioNTech has been a signatory of the Diversity Charter (Charta der Vielfalt).

At BioNTech, discrimination, favoritism or harassment on the basis of gender, race, religion or belief, nationality, ethnic or social origin, age, sexual orientation, marital status, disability, physical appearance, or any other aspect of personal status, is not tolerated. This is regulated in the Company's policies and in the Code of Business Conduct & Ethics, which are binding for all employees.

BioNTech perceives discrimination as unjust or unfair actions that are made either directly or indirectly against individuals or groups and may cause a hostile, intimidating or offensive working environment. Anyone who discriminates against or harasses another person may face disciplinary actions, including the termination of employment with BioNTech.

BioNTech's HR Department is responsible for and ensures a respectful environment with equal opportunities in all areas, from recruitment and selection to professional development, succession planning and compensation. Each new employee receives a printout of the Code of Business Conduct & Ethics in his or her starter package. The anti-discrimination topics are part of the Code of Conduct training, which is also available on the intranet.



Fair Representation of Women

In addition to the professional and personal qualifications of the members of the Management Board and the Supervisory Board, BioNTech also takes diversity and the appropriate participation of women into account in the composition of both bodies.

BioNTech's Management Board currently consists of six members, of which Özlem Türeci, M.D., performs the function of Chief Medical Officer. Thus, the current proportion of women on the Management Board is 16.7% (2019 and 2020: 20%).

Overall, 43% (2020: 45%; 2019: 34%) of the members of the highest management level below the BioNTech Management Board are women. At the second-highest management level below the BioNTech Management Board, 52% (2020: 45%; 2019: 48%) of the positions are held by women.

On May 4, 2020, in accordance with Section 111 (5) of the German Stock Corporation Act (AktG), the Supervisory Board set the target for the proportion of women at 25% for the Management Board and 25% for the Supervisory Board. These targets are to be achieved by December 31, 2022.

On April 29, 2020, in accordance with Section 76 (4) of the German Stock Corporation Act (AktG), the Management Board resolved to set the target for the proportion of women in management positions. The share of women in the highest and second-highest management levels below the Management Board should be at least 30% in each case. The respective targets are to be achieved no later than December 31, 2022.

43%

**women in highest
management level
below Management
Board**

52%

**women in
second-highest
management level**

Fair Remuneration

BioNTech is a fast-growing company. A portion of this growth has resulted from new operating units that were acquired on the market. The company has therefore actively addressed the challenge of merging business units that, in some cases, have different collective bargaining bases. In 2020, together with the works councils in Mainz and the Innovative Manufacturing Services unit in Idar-Oberstein, the Company signed agreements for fair and transparent base salary and job level systems and will continue to develop consistent employee remuneration systems that are competitive, transparent and attractive. This is BioNTech’s benchmark for enforcing these principles with all mergers and acquisitions and for all sites. For the plant in Marburg (BioNTech Manufacturing Marburg GmbH), acquired in 2020, BioNTech is bound by an industry-wide collective bargaining agreement (“Manteltarifvertrag der Chemischen Industrie”).

Unlike other legal systems, German law has a General Act on Equal Treatment (Gesetz zur Allgemeinen Gleichbehandlung – AGG) that applies in Germany. Part-time employees have the same access to remuneration and benefits as full-time employees, in some cases on a pro-rata basis.



THE SAME PAY FOR THE SAME JOB.



6.7 HEALTH & SAFETY

Ensuring the highest occupational safety and health standards for employees of BioNTech is essential.

SHE Management

Ultimate responsibility for safety and health rests with the Management Board. Operational implementation and responsibility lie with the SHE (Safety, Health, Environment) department and its management. As part of BioNTech SE, this department operates globally. It manages topics such as safety, health, fire, and radiation protection, as well as the monitoring of biological agents and hazardous substances. Most of these topics, including the protection of employees, are highly regulated. The SHE department is also responsible for emergency responses, evacuation procedures, rescue plans and related training.

As part of a continuous improvement process, BioNTech began implementing a cloud-based solution in mid-2021 to standardize SHE (occupational safety, health and environment) processes across the Group. More than 60 employees have been trained as key users who act as multipliers within the Company.

The first process to be migrated to the new system was the reporting of incidents (personal injury or environmental damage) at all German sites. A simple, standardized platform was created that employees can use to report accidents, unsafe situations and good catches. Central processes for risk assessments and the management of hazardous substances have also been integrated into the system.

The Company has also started implementing an integrated management system for the 14001 (environmental management), 45001 (occupational health and safety management) and 50001 (energy management) standards. In preparation for a certification audit (Stage 2 audit), a Stage 1 audit is planned for the first quarter of 2023.

At the end of 2022, BioNTech intends to expand the software by adding further modules. This will also standardize the processes from the environment and sustainability areas throughout the Group. All of BioNTech’s organizational units will be affected by the implementation.

**BioNTech’s corporate target:
No impairment of the health of employees.**

Targets & Risk Management

The corporate target is “No impairment of the health of employees”. By assuming personal responsibility, conducting regular on-site reviews, and implementing measures, the goal is to ensure compliance with all legal and other requirements to meet this objective. The Company always strives to exceed these requirements.

Risks and hazards are regularly identified using recognized analysis methods, such as regulatory defined hazard assessments. Measures to protect employees are derived from these analyses. In dialog with experts and regulatory authorities, for example, processes are optimized and compliance with legal requirements is checked.



Safety Briefings & Training

All measures have the objective of ensuring a safe and accident-free work environment. General safety briefings for all employees and specific safety briefings for employees in laboratories and other special workplaces are carried out regularly and monitored in accordance with heavy regulatory requirements, for example, through regular internal and external inspections of offices, laboratories and other workplaces. Safety officers, first aid staff, and fire protection assistants receive regular training.

All employees with personnel responsibility receive a mandatory annual briefing on occupational health and safety. These employees, together with the trained safety officers in the relevant departments, are contacts in addition to the SHE management and its employees. Workers who are not employees but whose work or workplace is controlled by BioNTech are included in the mandatory safety briefings. Accidents and near-accidents are documented at all times (see detailed figures on [page 83](#)). Accidents are inspected by SHE employees, and the causes of accidents are eliminated systematically.

Communication

All relevant information on the subject of safety and health, including operating directives, risk assessments, guidelines, and laws is available to all employees. Relevant digital information areas have been set up for the topics of occupational safety and health and genetic engineering. They contain all laws, ordinances, rules, operating instructions, forms and relevant context information. Mandatory training, particularly the annual general Health & Safety instruction program available to all employees, is ensured and controlled by the SHE department. In addition, all training courses – mandatory and voluntary – from SHE management are always available to all employees online.

Construction Site Safety

The topics of health protection and construction site safety have the highest priority at BioNTech. The corporate goal is: “No impairment of the health of all workers on construction sites of BioNTech.” In 2021, construction sites were only in Germany, so the following statements refer exclusively to the German sites and regulations.

In terms of construction site safety, no differentiation is made between the Company’s own employees and those of external companies. This is ensured in different ways. Firstly, through the permanent presence of site management, which is responsible for all processes on-site. Secondly, an external health and safety coordinator (SiGeKo) checks safety on the construction sites at least once a week. Any deficiencies identified are recorded in a report, followed up and must be rectified as quickly as possible. Visitors also receive a safety briefing before they are allowed to enter the construction site and are provided with personal safety equipment. Further regulations are laid down in the individual construction site regulations.

**Health protection and
construction site safety have the
highest priority at BioNTech.**

In addition, the SARS-CoV-2 occupational health and safety regulations of the occupational health and safety committees of the German Federal Ministry of Labor and Social Affairs (BMAS) are implemented. In accordance with the German Social Accident Insurance (DGUV), at least one paramedic is present on the construction sites during working hours when there are 100 or more people present.

Occupational Medical Service

The occupational medical service is regularly on-site and conducts examinations in accordance with the German Ordinance on Preventive Occupational Medicine (ArbMedVV).

Health Promotion

BioNTech continues to expand the measures and information on employee health protection. In addition to company-supported sports activities and health-related courses, such as yoga, health days are sponsored four times each year by Germany's largest health insurer. Other offers, health information, and campaign days on the subject of health are regularly communicated on the intranet.



7.0 Appendix & Data

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7.0 Appendix & Data

7.1 ABOUT THIS REPORT

The Sustainability Report 2021 is the second corporate responsibility and sustainability report of the BioNTech Group. It was published at the end of March 2022.

The reporting period corresponds to the financial year 2021. As a basic rule, the data relevant for reporting are related to the financial year 2021. The dynamics of the COVID-19 pandemic have had significant impact on BioNTech's core business, as well as on the areas of corporate responsibility or sustainability. Accordingly, the editorial deadline was the end of March 2022 in order to be able to adequately present relevant developments. Topics with relevance beyond the 2021 financial year are therefore part of the report and indicated appropriately.

The sustainability report complies with the requirements of Articles 289b et seq. and 315b et seq. of the German Commercial Code (HGB) and includes the so-called "non-financial aspects" of the Company's activities (environmental, employee and social issues, human rights, anti-corruption and anti-bribery) that are relevant for an understanding of its business performance and position.

This report has been prepared in accordance with the GRI Standards: Core option (see [7.4 GRI Content Index](#)).

7.2 VERIFICATION

The Supervisory Board has examined the contents of this Sustainability Report 2021 in accordance with Section 171 (1) AktG. The Supervisory Board found that the content of the report complies with the requirements of Sections 289b et seq. and 315b et seq. HGB. It also stated that the report is coherent in relation to the adopted strategy and corporate policy of the Management Board with regard to non-financial objectives and the concepts developed for this purpose. The Sustainability Report was reviewed with regard to the statements in the group management report on the opportunities and risks of the future development of the Company. Following the outcome of the Supervisory Board's review, there were no objections raised to the Sustainability Report for the financial year 2021.



7.3 DETAILED DATA

Energy consumption MWh¹ (GRI 302-1)

	% of total in 2021	2021	2020	2019
Direct energy consumption				
Renewable energy generated on site	0.1	26 ²	0	0
Coal	0	0	0	0
Natural gas	10.4	3,862	3,509	2,470
Heating oil	0	0	0	0
Fleet	0.9	345	0	0
Biofuels	0	0	0	0
Indirect energy consumption				
Bought-in electricity	43.1	15,934	10,466	7,812
Thereof renewable bought-in electricity		14,440	1,042	943
% of renewable electricity		91 ³	10	12
District heating	9.9	3,678	3,072	2,976
District cooling	15.7	5,814	0	0
Bought-in steam	19.5	7,219	0	0
Bought-in compressed air	0.3	107	0	0
Total energy consumption		36,984⁴	17,047	13,258
Thereof renewable energy consumption		14,466	1,042	943
% of renewable energy		39	6	7

¹ BioNTech increased the level of granularity and transparency of its energy data in 2021. The values for 2019 and 2020 are mapped in the new structure to ensure comparability and for the publication of further energy sources for the current reporting year.

² BioNTech started in 2021 to produce renewable energy on site at Idar-Oberstein.

³ BioNTech significantly increased the share of the renewable electricity of its sites in 2021.

⁴ Increase in energy consumption due to the increase in production and acquisition of new sites in 2021.

Energy by source

	% of total in 2021	2021	2020	2019
Renewable energy sources	39.1	14,466 ⁵	1,042	943
Natural gas	10.4	3,862	3,509	2,470
Coal, nuclear, petroleum fuels and/or similar energy sources	50.4	18,656 ⁶	12,496	9,845
Total energy		36,984	17,047	13,258

⁵ BioNTech significantly increased the share of renewable electricity at its sites and started to produce renewable energy in 2021.

⁶ This includes electricity from non-renewable sources, district heating, district cooling, steam, compressed air, and fleet.



Direct GHG emissions (Scope 1; GRI 305-1) and indirect GHG emissions (Scope 2; GRI 305-2)

In t CO ₂ e	% of total in 2021	2021	2020	2019
Scope 1 emissions¹	27	886	704	607
Coal		0	0	0
Natural gas		809	660	565
Heating oil		0	0	0
Fleet emissions		42	25	29
Process-related emissions		35	19	14
Refrigerants		0	0	0
Scope 2 emissions (market-based)²	73	2,337³	3,851	2,748
Electricity		423	3,139	2,460
District heating		290	713	288
District cooling		0	0	0
Steam		1,624	not collected	not collected
Total Scope 1 & 2		3,223	4,555	3,356
SBTi target KPI [%] vs. 2021		Baseline year		
CO ₂ emissions from biofuels		0	0	0

¹ For the calculation of Scope 1, BioNTech used emissions factors from, e.g., GEMIS 5.0 and DEFRA 2021.

² Scope 2 emissions include purchased electricity, district heating and steam. For the calculation of Scope 2 emissions from purchased electricity, the market-based method was used. The market-based method uses emissions factors from BioNTech's renewable energy suppliers that fulfill internal quality criteria. When supplier data was not available, residual mix factors (if available) and grid mix factors were used. The location-based Scope 2 emissions from purchased electricity equal 5,861 t CO₂e.

³ In 2021, BioNTech significantly increased the share of renewable electricity at its sites. Moreover, the Company purchased green district heating for sites in Mainz.

CO₂ emissions relate to BioNTech sites that are under the Company's direct operational control. These represent BioNTech's core activities.

CO₂e emissions Scope 1 and 2 by location⁴

In t CO ₂ e	% of total in 2021	2021	2020	2019
Mainz	12.2	393	2,122	2,243
Berlin	2.6	84	82	15
Idar-Oberstein	12.2	395 ⁵	1,591	915
Martinsried	1.6	53	110	144
Neuried	1.0	31	46	38
Halle ⁷	0.3	9	11	-
Marburg ⁷	56.9	1,834 ⁶	493	-
Vienna ⁸	0.1	2 ⁷	-	-
Cambridge ⁷	2.4	78	101	-
Gaithersburg ⁸	10.7	345 ⁷	-	-
Total BioNTech	100	3,223	4,555	3,356

⁴ Scope 2 market-based calculation.

⁵ In 2021, BioNTech significantly increased the share of its renewable electricity at its sites.

⁶ 2021 was first year of production at full capacity.

⁷ New site of BioNTech since 2020.

⁸ New site of BioNTech since 2021.



Energy/CO₂ intensity KPIs

	2021	2020	2019
Cost of sales (in € m)	2,911.50	59.3	17.4
Energy use/cost of sales (in MWh/€)	0.01	0.3	0.8
GHG emissions/cost of sales (in t/€ m)	541.69	104.2	334.1
FTEs	3,183¹	2,047	1,323
Energy use/FTE (in MWh/FTE)	11.62	8.3	10.0
GHG emissions Scope 1 & 2/FTE (in t/FTE)	1.01	2.2	2.5
GHG emissions Scope 1, 2 & 3/FTE (in t/FTE)	495.48 ²	3.0	4.4

¹ Number of employees as of the December 31 reporting date.

² A complete analysis of all Scope 3 categories did not take place until 2021.

Other indirect GHG emissions (Scope 3; GRI 305-3)³

In t CO ₂ e	% of total in 2021	2021	2020	2019
Upstream activities				
3.1 Purchased goods and services ⁴	94.6	1,488,635	16	18
3.2 Capital goods ⁴	2.7	42,413	not collected	not collected
3.3 Fuel and energy related activities	0.1	1,847	970	937
3.4 Transportation and distribution ⁴	2.3	35,859	not collected	not collected
3.5 Waste generated in operations	0	19	333	310
3.6 Business travel	0	187	305	1,180
3.7 Employee commuting	0.1	1,406	not collected	not collected
Downstream activities				
3.9 Transportation and distribution	0.2	3,509	not collected	not collected
3.12 End-of-life treatment of sold products	0	23	not collected	not collected
Total Scope 3		1,573,898	1,624	2,445
Total Scope 1-3 (in t CO₂e)		1,577,122⁵	6,179	5,801

³ BioNTech increased the completeness of Scope 3 data through a comprehensive screening process and added all relevant categories to its footprint. It was therefore able to publish its complete footprint in 2021, which is not comparable with the previous years.

⁴ The relevant upstream categories were calculated using a comprehensive environmental input-output model based on BioNTech's procurement volume.

⁵ In 2019/2020, only a few Scope 3 categories were analyzed (e.g., paper and toner for 3.1; upstream chain electricity, heat, and vehicle fleet for 3.3). The 2021 data is therefore comparable to previous years only to a very limited extent.



Waste generated (GRI 306-3, 306-4, 306-5)¹

In t	% of total in 2021	2021 ²	2020	2019
Hazardous waste	27.5	247	274	214
Energy recovery		247	274	214
Incineration		0	0	0
Landfill		0	0	0
Recycling		0	0	0
Non-hazardous waste	72.5	650	1,283	157
Energy recovery		592	1,283	157
Incineration		0	0	0
Landfill		0	0	0
Recycling		not collected	not collected	not collected
Total waste¹		897	1,558	371

¹ In 2021, BioNTech set up a new structure for waste reporting in line with GRI requirements (2020) and for higher transparency. BioNTech uses data mainly from external service providers.

² In 2020, BioNTech conducted several (de-)construction activities. Therefore, the numbers in 2020 are comparatively high. The growth between 2019 and 2021 is attributable to the acquisition of new sites and higher production volumes.

Water and wastewater (GRI 303-3, 303-4)³

In thousand cubic meters	2021	2020	2019
Total water withdrawal	72	25	15
Total water discharge	72	25	15

³ All of the Company's water used and discharged is based on freshwater and provided/managed by third parties. BioNTech is currently unable to collect and publish data on water-stressed areas but plans to assess its impact on water withdrawal in the future.



Quarterly average breakdown of employees by function

Headcount, excluding Management Board, trainees and interns	December 31, 2021	December 31, 2020	December 31, 2019	December 31, 2018
Clinical Research & Development	137	113	81	46
Scientific Research & Development	875	586	414	300
Operations	863	490	376	268
Quality	322	184	129	105
Support Functions	431	218	126	97
Commercial & Business Development	66	33	69	28
Total	2,694	1,624	1,195	844

Breakdown of employees by function as of the end of the reporting period

Headcount, excluding Management Board, trainees and interns	December 31, 2021	December 31, 2020	December 31, 2019	December 31, 2018
Clinical Research & Development	153	128	90	52
Scientific Research & Development	1,026	661	459	338
Operations	1,036	699	416	305
Quality	301	234	142	118
Support Functions	539	276	139	109
Commercial & Business Development	83	49	77	31
Total	3,138	2,047	1,323	953

New employees

	2021 BioNTech	2020 BioNTech	2019 BioNTech
Total number of new employee hires	1,372	501	538
By age group			
Up to 29 years old	496	233	239
30–49 years old	784	230	269
50 years or older	92	38	30
By gender			
Women	740	251	274
Men	632	250	264
By region			
Europe (incl. UK)	1,207	468	537
Asia	3	–	–
USA	162	33	1
Rate of new employee hires (in %)¹			
By age group			
Up to 29 years old	15.82	11.38	18.07
30–49 years old	24.98	11.24	20.33
50 years or older	2.93	1.86	2.27
By gender			
Women	23.59	12.26	20.71
Men	20.14	12.21	19.95
By region			
Europe (incl. UK)	37.10	22.86	40.59
Asia	0.12	–	–
USA	6.50	1.61	0.08

¹ Formula for calculating the rate of new employee hires: Total number of new employee hires divided by number of employees at the end of the fiscal year.



Employee turnover

	2021 BioNTech	2020 BioNTech	2019 BioNTech
Total turnover rate (in %)	6.56	11.58	12.80
By age group			
Up to 29 years old	2.55	5.11	5.19
30–49 years old	3.41	5.23	6.53
50 years or older	0.61	1.23	1.09
By gender			
Women	4.08	6.03	7.36
Men	2.49	5.54	5.44
By region			
Europe (incl. UK)	5.80	11.21	12.80
USA	0.76	0.37	0
Others	0	0	0

	2021 BioNTech	2020 BioNTech	2019 BioNTech
Total number of leavers	206	188	153
By age group			
Up to 29 years old	80	83	62
30–49 years old	107	85	78
50 years or older	19	20	13
By gender			
Women	128	98	88
Men	78	90	65
By region			
Europe (incl. UK)	182	182	153
USA	24	6	0
Others	0	0	0
By type according to SASB HC-BP-330a.2			
Executives/senior managers voluntary and involuntary turnover rate	5	5	6
Mid-level managers voluntary and involuntary turnover rate	14	17	13
Professionals voluntary and involuntary turnover rate	33	45	40
All others voluntary and involuntary turnover rate	154	121	94



Parental leave in Germany

As of December 31	2021 BioNTech	2020 BioNTech	2019 BioNTech
Number of employees with a right to parental leave	188	136	101
Thereof women	118	89	61
Thereof men	70	47	40
Number of employees who took parental leave	188	133	95
Thereof women	118	89	60
Thereof men	70	44	35
Number of employees who returned from parental leave	100	65	53
Thereof women	58	31	21
Thereof men	42	34	32
Return to work rate (in %)	97.0	94.2	92.98
Thereof women	96.55	93.94	91.3
Thereof men	97.62	94.44	94.12
Number of employees still working for BioNTech one year after their return from parental leave	Figure will be available on December 31, 2022.	89%	89%

Fair representation of women

As of December 31	Total number of employees		
	2021	2020	2019
Women	1,605	1,098	741
Men	1,533	949	582
Total	3,138	2,047	1,323

Work-related injuries

In EUR thousand	2021	2020	2019	2018
Number of fatalities as a result of work-related injuries	0	0	0	0
Rate of fatalities as a result of work-related injuries in % ¹	0	0	0	0
Number high-consequence-work-related injuries (excluding fatalities)	0	0	0	not collected
Rate of high-consequence-work-related injuries (excluding fatalities) in % ²	0	0	0	not collected
Number of recordable work-related injuries at the BioNTech facilities in Mainz	2	4	2	not collected
Lost time accident rate (LTAR) at the BioNTech facilities in Mainz ³	0.1328	0.2756	0.169	not collected

¹ Number of fatalities as a result of work-related injury divided by number of hours worked and multiplied by 200,000. Work-related injuries are those that arise from exposure to hazards at work.

² High-consequence, work-related injuries (excluding fatalities) divided by number of hours worked and multiplied by 200,000. A high-consequence, work-related injury is a work-related injury that results in a fatality or in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within 6 months.

³ Number of recordable work-related injuries divided by number of hours worked and multiplied by 200,000. Work-related injuries are work-related injuries or ill health that result in any of the following: death, days away from work, restricted work, transfer to another job, medical treatment beyond first aid, loss of consciousness or significant injury or ill health diagnosed by a physician or other licensed healthcare professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

Regional distribution of employees

	Total number of employees	Share of employees (in %)
Asia	3	0.10
US	233	7.43
European Union	2,898	92.35
UK	4	0.13



7.4 GRI CONTENT INDEX, INCLUDING SASB STANDARDS, UN SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND PRINCIPLES OF THE UN GLOBAL COMPACT (UNGC)

GRI

BioNTech's sustainability reporting is guided by the standards of the Global Reporting Initiative (GRI). This report was prepared in accordance with the current version of the guidelines, the GRI Sustainability Reporting Standards (GRI SRS) 2016. This report has been prepared in accordance with the GRI Standards: Core option. In the GRI Content Index, readers will find references to text passages which reference corresponding GRI indicators.

SASB

In the Sustainability Report 2020 BioNTech started to apply the SASB industry standards to identify, manage and communicate financially material sustainability information to shareholders and has started to map the applicable standards in the present GRI Content Index.

UNGC and SDGs

By signing the 10 principles underlying the United Nations Global Compact (UNGC), BioNTech has explicitly committed to respecting human rights and labor standards, promoting environmental protection in its business operations and preventing corruption.

BioNTech supports the UNGC with the objective of contributing to the global implementation of its 10 principles and the Sustainable Development Goals (SDGs). BioNTech has integrated the ten principles into its business processes and is implementing concrete actions to enforce them.

Within the GRI table, BioNTech references the 10 Principles of the UN Global Compact separately. The Overall Sustainability Report 2020 is therefore also the Communication on Progress Report for the UN Global Compact.

BioNTech supports and promotes the UN's 17 Sustainable Development Goals (SDGs). They have been cross-referenced in this report's Content Index whenever applicable.

GRI Content Index

	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
General Disclosures					
Organizational Profile					
102-1 Name of the organization				7	
102-2 Activities, brands, products, and services				7	
102-3 Location of headquarters				9	
102-4 Location of operations				9	
102-5 Ownership and legal form				9	
102-6 Markets served				8	
102-7 Scale of the organization				8, 9	
102-8 Information on employees and other workers		8, 10	6	72, 81	
102-9 Supply chain				39, 57–58, 62, 67	
102-10 Significant changes to the organization and its supply chain				9, 11, 21, 53–54,	
102-11 Precautionary Principle or approach				33–38, 50, 54, 60, 73	



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
102-12 External initiatives				29	
SDG 17 Partnerships for the Goals		17		7, 12–13	
102-13 Membership of associations		17		95	
Strategy					
102-14 Statement from senior decision-maker			1–10	2, 4–5	
102-15 Key impacts, risks, and opportunities				5, 7, 8, 12–14, 47, 54, 60, 68–72, 73	
Ethics and Integrity					
102-16 Values, principles, standards, and norms of behavior	HC-BP-510a.1/2	16	1–6, 7, 10	2, 27–28, 65	
102-17 Mechanisms for advice and concerns about ethics		16	1–6, 7, 10	31	
Governance					
102-18 Governance structure				21–26	
102-19 Delegating authority				21	
102-20 Executive-level responsibility for economic, environmental, and social topics				21	
102-21 Consulting stakeholders on economic, environmental, and social topics		16		22	
102-22 Composition of the highest governance body and its committees		5, 16		9, 21	https://investors.biontech.de/corporate-governance
102-23 Chair of the highest governance body		16		See website	https://investors.biontech.de/corporate-governance
102-24 Nominating and selecting the highest governance body		5, 16		See website	https://investors.biontech.de/corporate-governance
102-25 Conflicts of interest		16		35, 38	
102-26 Role of highest governance body in setting purpose, values, and strategy				See website	https://investors.biontech.de/corporate-governance
102-27 Collective knowledge of highest governance body				See website	https://investors.biontech.de/corporate-governance
102-28 Evaluating the highest governance body's performance				See website	https://investors.biontech.de/corporate-governance
102-29 Identifying and managing economic, environmental, and social impacts		16	1–10	22	
102-30 Effectiveness of risk management processes					See 20-F Report
102-31 Review of economic, environmental, and social topics				22	
102-32 Highest governance body's role in sustainability reporting				21	
102-33 Communicating critical concerns				23	



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
102-34 Nature and total number of critical concerns					No information available.
102-35 Remuneration policies		5, 8	6	73	
102-36 Process for determining remuneration		5, 8	6	73	
102-37 Stakeholders' involvement in remuneration		16		73	
102-38 Annual total compensation ratio					No information available.
102-39 Percentage increase in annual total compensation ratio					No information available.
Stakeholder Engagement					
102-40 List of stakeholder groups				5, 12–14, 50	
102-41 Collective bargaining agreements		8	3	67, 73	
102-42 Identifying and selecting stakeholders				22	
102-43 Approach to stakeholder engagement				11, 22	
102-44 Key topics and concerns raised				4–5, 12, 22	
Reporting Practice					
102-45 Entities included in the consolidated financial statements				9	
102-46 Defining report content and topic Boundaries				9	
102-47 List of material topics				22	
102-48 Restatements of information					Not reported yet.
102-49 Changes in reporting				Not applicable	
102-50 Reporting period				76	
102-51 Date of most recent report				76	
102-52 Reporting cycle				76	
102-53 Contact point for questions regarding the report				95	
102-54 Claims of reporting in accordance with the GRI Standards				76	
102-55 GRI content index				84	
102-56 External assurance				76	No independent external assurance.



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
Material and Relevant Topics					
Economic Performance					
GRI 201: Economic Performance 2016					
201-2 Financial implications and other risks and opportunities due to climate change			7, 8, 9	58	
201-4 Financial assistance received from government				50	
Innovation					
103-1 Explanation of the material topic and its Boundary				9	
103-2 The management approach and its components				9	
Sustainable Growth & Culture					
103-1 Explanation of the material topic and its Boundary				71	
103-2 The management approach and its components		8, 12		71	
203-2 Significant indirect economic impacts		1, 3, 8		10, 12	
Anti-corruption					
103-1 Explanation of the material topic and its Boundary				37–38	
103-2 The management approach and its components				37–38	
GRI 205: Anti-corruption 2016					
205-1 Operations assessed for risks related to corruption		16	10	37–38	
205-2 Communication and training about anti-corruption policies and procedures		4, 16	10	37–38	
Anti-competitive Behavior					
103-1 Explanation of the material topic and its Boundary				37–38	
103-2 The management approach and its components				37–38	
Tax					
103-1 Explanation of the material topic and its Boundary				50	
103-2 The management approach and its components				50	
103-3 Evaluation of the management approach				50	
GRI 207: Tax 2019					



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
207-1 Approach to tax		1, 10, 17		50	
207-2 Tax governance, control, and risk management		1, 10, 17		50	
Environmental Topics					
Climate Protection					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				54	
103-2 The management approach and its components				54	
GRI 302: Energy 2016					
302-1 Energy consumption within the organization		7, 8, 12, 13	7, 8, 9	58	
302-2 Energy consumption outside of the organization		7, 8, 12, 13	7, 8	58	
302-3 Energy intensity			7, 8	58	
302-4 Reduction of energy consumption		7, 8, 12, 13	8, 9	58	
302-5 Reductions in energy requirements of products and services		7, 8, 9, 12, 13	8, 9	59	
Water					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				60–61	
103-2 The management approach and its components				60–61	
GRI 303: Water 2016					
303-1 Water withdrawal by source		6, 12	7, 8	60–61	
303-2 Water sources significantly affected by withdrawal of water		6		60–61	
303-3 Water recycled and reused		6	8	60–61	
Emissions					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				54–55	
103-2 The management approach and its components				54–55	
GRI 305: Emissions 2016					
305-1 Direct (Scope 1) GHG emissions		3, 12, 13, 14, 15	7, 8	56–58	



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
305-2 Energy indirect (Scope 2) GHG emissions		3, 12, 13, 14, 15	7, 8	56–58	
305-3 Other indirect (Scope 3) GHG emissions		3, 12, 13, 14, 15	7, 8	56–58	
305-4 GHG emissions intensity		13, 14, 15	8	56–58	
305-5 Reduction of GHG emissions		7, 12, 13, 14, 15	8, 9	56–58	
305-6 Emissions of ozone-depleting substances (ODS)		3, 12	7, 8	56–58	
305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions		3, 12, 14, 15	7, 8	56–58	
Effluents and Waste					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				61–62	
103-2 The management approach and its components		12		61–62	
GRI 306: Waste 2020					
306-1 Waste generation and significant waste-related impacts		6, 12	8	61–62	
306-2 Management of significant waste-related impacts		3, 6, 12	8	61–62	
306-3 Waste generated		3, 6, 12, 14, 15	8	61–62	
306-4 Waste diverted from disposal		3, 6, 12	8	61–62	
306-5 Waste directed to disposal		3, 6, 12	8	61–62	
Environmental Compliance					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				53–54	
103-2 The management approach and its components		12		53–54	
GRI 307: Environmental Compliance 2016					
307-1 Non-compliance with environmental laws and regulations		12, 13, 16	8	53–54	
Supplier Environmental Assessment					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				62	
103-2 The management approach and its components				62	
GRI 308: Supplier Environmental Assessment 2016					



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
308-1 New suppliers that were screened using environmental criteria		8, 12	8	62	No data available. The screening process has not started yet.
308-2 Negative environmental impacts in the supply chain and actions taken		12, 16	8	62	
Social Topics					
Employment					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				65–67	
103-2 The management approach and its components				65–67	
GRI 401: Employment					
401-1 New employee hires and employee turnover		5, 8, 10	6	68–69	
Discussion of talent recruitment and retention efforts for scientists and research and development personnel	HC-BP-330a.1.			68–69	
(1) Voluntary and (2) involuntary turnover rate for: (a) executives/senior managers, (b) mid-level managers, (c) professionals, and (d) all others	HC-BP-330a.2.			82	
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees		3, 5, 8	6	73	
401-3 Parental leave		5, 8	6	69	
Labor/Management Relations					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				65–67	
103-2 The management approach and its components				65–67	
GRI 402: Labor/Management Relations 2016					
402-1 Minimum notice periods regarding operational changes		8	3		No information available.
Occupational Health and Safety					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				73–74	
103-2 The management approach and its components				73–74	
GRI 403: Occupational Health and Safety 2018					
403-1 Occupational health and safety management system		3, 8		73–74	



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
Tackling Mental Stress at BioNTech		3		74	
403-2 Hazard identification, risk assessment, and incident investigation		8		73–74	
403-3 Occupational health services		8		73–74	
403-4 Worker participation, consultation, and communication on occupational health and safety		8, 16		73–74	
403-5 Worker training on occupational health and safety		3, 4, 8		73–74	
403-6 Promotion of worker health		3		73–74	
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		8		73–74	
403-08 Workers covered by an occupational health and safety management system		8		83	
403-09 Work related injuries		3, 8		83	
403-10 Work related ill health		3, 8		83	
Training and Education					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				70	
103-2 The management approach and its components				70	
GRI 404: Training and Education 2016					
404-1 Average hours of training per year per employee		4, 5, 8, 10	6	70	
404-2 Programs for upgrading employee skills and transition assistance programs	HC-BP-330a.1.	4, 8		70	
404-3 Percentage of employees receiving regular performance and career development reviews		5, 8, 10	6		Not reported yet.
Diversity and Equal Opportunity					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				72–73	
103-2 The management approach and its components				72–73	
GRI 405: Diversity and Equal Opportunity 2016					
405-1 Diversity of governance bodies and employees		5, 8	6	72–73	
405-2 Ratio of basic salary and remuneration of women to men		5, 8	6		Not reported yet.



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
Non-discrimination					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				72–73	
103-2 The management approach and its components				72–73	
GRI 406: Non-discrimination 2016					
406-1 Incidents of discrimination and corrective actions taken		5, 8, 16	6		Not reported yet.
Freedom of Association and Collective Bargaining					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				67, 73	
103-2 The management approach and its components				67, 73	
GRI 407: Freedom of Association and Collective Bargaining 2016					
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk		8	2, 3	67	
Child Labor					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				67	
103-2 The management approach and its components				67	
GRI 408: Child Labor 2016					
408-1 Operations and suppliers at significant risk for incidents of child labor		8, 16	2, 5		Not reported yet.
Forced or Compulsory Labor					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				67	
103-2 The management approach and its components				67	
GRI 409: Forced or Compulsory Labor 2016					
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor		8	2, 4		Not reported yet.
Supplier Social Assessment 2016					
GRI 103: Management Approach 2016					



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
103-1 Explanation of the material topic and its Boundary				67	
103-2 The management approach and its components				67	
GRI 414: Supplier Social Assessment					
414-1 New suppliers that were screened using social criteria		5, 8, 16	1-6		The screening process has not started yet.
SASB Supply Chain Management	HC-BP-430a.1			67	
414-2 Negative social impacts in the supply chain and actions taken		5, 8, 16	1-6		The screening process has not started yet.
Public Policy					
GRI 415-1: Public Policy 2016					
415-1 Political contributions		16	10	50	
Patients (Customer) Health and Safety					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				40-46	
103-2 The management approach and its components				40-46	
GRI 416: Patients & Customer Health and Safety 2016					
416-1 Assessment of the health and safety impacts of product and service categories				40-46	
SASB: Discussion, by world region, of management process for ensuring quality and patient safety during clinical trials	HC-BP-210.a.1			40-46	
SASB: Patient Safety: Number of FDA Sponsor Inspections related to clinical trial management and pharmacovigilance that resulted in: (1) Voluntary Action Indicated (VAI) and (2) Official Action Indicated (OAI)	HC-BP-210.a.2			42	
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services		16		42	
Marketing and Labeling					
GRI 417: Marketing and Labeling 2016					
417-1 Requirements for product and service information and labeling		12	7	44	
Patients & Customer Privacy					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				47	
103-2 The management approach and its components				47	



	SASB	SDG	UNGC Principle	Page number(s)	Comments/Omissions
GRI 418: Customer Privacy 2016					
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data		16		47	
Socioeconomic Compliance					
GRI 419: Socioeconomic Compliance 2016					
419-1 Non-compliance with laws and regulations in the social and economic area		16		35–37	
Animal Welfare (GRI 101 2.5.3)					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				47–49	
103-2 The management approach and its components				47–49	
GRI 101-2.5.3					
101-Ziff 2.5.3 Description of Animal Welfare Measures		8, 12		47–49	
Business Ethics / Governance					
GRI 103: Management Approach 2016					
103-1 Explanation of the material topic and its Boundary				35–38	
103-2 The management approach and its components				35–38	
GRI 101-2.5.3					
Business Ethics: Description of code of ethics governing interactions with health care professionals	HC-BP-510.a.2			37–38	https://investors.biontech.de/corporate-governance
Compliance Training		4		36–37	
Corporate Citizenship (non-material, no reporting obligations)					
Corporate Citizenship				27–28	
Development of concept on “Corporate Citizenship”		16		27–28	
Caring for Patients					
Development of concept on “Caring for Patients”		16		40–44	



7.5 MEMBERSHIPS

In 2021, BioNTech was a member of the following organizations and institutions:

- Arbeitsgemeinschaft für Pharmazeutische Verfahrenstechnik e.V.
- Biotechnologie-Industrie-Organisation Deutschland e.V. (BIO Deutschland e.V.)
- Bundesdeutscher Arbeitskreis für Umweltbewusstes Management (B.A.U.M.) e.V.
- Bundesverband Materialwirtschaft, Einkauf und Logistik e.V. (BME)
- Chambre de Commerce et D'Industrie France-Amerique
- Cluster for Individualized Immune Intervention (Ci3) e.V.
- DECHEMA Gesellschaft für Chemische Technik und Biotechnologie e.V.
- DIRK – Deutscher Investor Relations Verband e.V.
- econsense – Forum Nachhaltige Entwicklung der Deutschen Wirtschaft e.V.
- Freiwillige Selbstkontrolle für die Arzneimittelindustrie e.V.
- German Quality Management Association (GQMA) gesundheitswirtschaft rhein-main e.V.
- IHK – Industrie- und Handelskammer Halle-Dessau
- IHK – Industrie- und Handelskammer für Koblenz
- IHK – Industrie- und Handelskammer für Rheinhessen
- Initiative Gesundheitsindustrie Hessen (IGH)
- Kita Bio Regio e.V.
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- Research Quality Association Ltd.
- Verband Forschender Arzneimittelhersteller e.V. (vfa)

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