

strategy & Management



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company profile



Part of the non-financial report

We are a global science and technology company headquartered in Darmstadt, Germany. With a history of nearly 350 years, we are the oldest chemical and pharmaceutical company in the world. In line with our strategic direction, Merck comprises three business sectors: Healthcare, Life Science, and Performance Materials.

In Healthcare, we discover, develop and manufacture prescription medicines used to treat cancer, multiple sclerosis, and infertility. Our products help millions of people around the world. In Life Science, we conduct research for researchers, providing scientists with laboratory materials, technologies and services. Our aim is to make research and biomanufacturing easier, faster and more successful. Performance Materials develops specialty chemicals and materials for demanding applications – from liquid crystals and OLED materials for displays to effect pigments for coatings and cosmetics up to high-tech materials for the manufacture of integrated circuits.

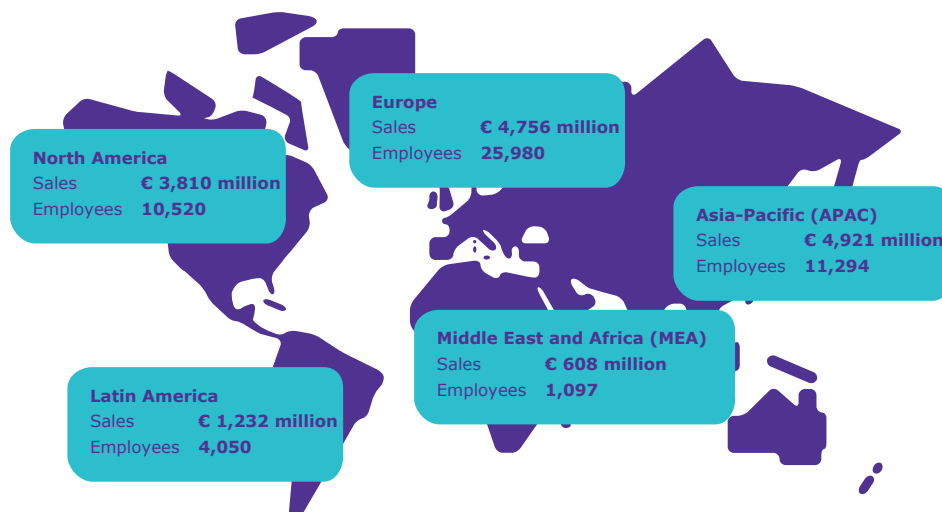
We are Merck

We hold the global rights to the Merck name and brand. The only exceptions are Canada and the United States. In these countries, we operate as EMD Serono in the biopharmaceutical business, as MilliporeSigma in the life science business and as EMD Performance Materials in the high-tech materials business.

Apart from our three business sectors, our financial reporting presents the five regions Europe, North America, Asia-Pacific (APAC), Latin America as well as Middle East and Africa (MEA). As of December 31, 2017, we had 52,941 employees worldwide, which compares with 50,414 on December 31, 2016.

In 2017, our 217 subsidiaries with employees in 66 countries generated sales of € 15.3 billion. Our 98 production sites are located across 24 countries.

Employees and sales by region – 2017



Group structure

Merck is a vibrant science and technology company.

Our **Healthcare** business sector comprises the three businesses Biopharma, Consumer Health, and Allergopharma. Our Biopharma business discovers, develops, manufactures and

markets innovative pharmaceutical and biological prescription drugs in four franchises: Oncology, Neurology & Immunology, Fertility, and General Medicine & Endocrinology. Biopharma is the largest of our Healthcare businesses. Our streamlined R&D pipeline positions us with a clear focus on becoming a leading specialty innovator in oncology, immuno-oncology and immunology, including multiple sclerosis. Our Consumer Health business focuses on consumer-centric innovation under the

umbrellas of several strategic brands such as Neurobion®, Bion3®, Nasivin®, Femibion®, Sangobion®, Vigantolekten® and Kytta®.

In the **Life Science** business sector, our purpose is to solve the toughest problems in life science by collaborating with the global scientific community – and through that, we aim to accelerate access to health for people everywhere. We serve customers in academia, biotech and pharma – helping them to deliver the promise of their work better, faster and safer. As a leading player in the life science industry, we offer innovative solutions for scientists and engineers at every stage. Our 300,000 products range from lab water systems to genome-editing tools, antibodies and cell lines, as well as end-to-end bioprocessing systems to support the manufacturing needs of both emerging biotech and large pharma

companies. After successfully orchestrating the largest integration in the history of Merck, the Life Science business sector redesigned its organizational structure in the second quarter of 2017. Strategic Marketing & Innovation units and commercial teams have been streamlined into three distinct business units – Research Solutions, Process Solutions and Applied Solutions.

Our specialty chemicals business is combined in our **Performance Materials** business sector. The portfolio includes high-tech chemicals for applications in fields such as consumer electronics, lighting, coatings, printing technology, paints, plastics, and cosmetics. Performance Materials comprises four business units: Display Materials, Integrated Circuit Materials, Pigments & Functional Materials, and Advanced Technologies.

Net sales by business sector – 2017



Governance

Based in Darmstadt, Germany, our company operates in the legal form of a corporation with general partners (Kommanditgesellschaft auf Aktien – KGaA). The general partner E. Merck KG holds around 70% of the total capital of Merck KGaA (equity interest); the shareholders hold the remainder, which is divided into shares (share capital). Our shares have been included in the DAX® 30, the blue chip index of the Deutsche Börse, since 2007. In September 2008, our company was added to the FTSE4Good Index, a sustainability index that assesses the social, ecological and ethical conduct of companies.

Group strategy

Over the past decade, Merck has transformed itself from a classic supplier of chemicals and pharmaceuticals into a global science and technology company. The main driver was the transformation of our business portfolio, particularly through the divestment of our Generics business (2007) and the acquisitions of Serono (2007), Millipore (2010), AZ Electronic Materials (2014), and Sigma-Aldrich (2015). In addition, we focused our businesses on innovation-driven and highly specialized products, extensively revamped our internal structures and processes, and expanded our presence in global growth markets. In line with this strategy, we completed the divestment of our Biosimilars business in 2017. In addition, we are preparing strategic options for our Consumer Health business, including a potential full or partial sale of the business as well as strategic partnerships.

Read more on our Group strategy in our Annual Report 2017.

Governance



Part of the non-financial report

Responsibility has been an integral part of our corporate identity for 350 years. It is therefore one of our six Values, together with Courage, Achievement, Respect, Integrity, and Transparency. These core values guide us in our daily work, defining how we interact with our customers and business partners. We research and develop products to enhance life in all its diversity, from the great questions facing humanity to the little everyday pleasures. We endeavor to give patients and customers the best – and find solutions for the world of tomorrow.

Our approach to responsible governance

Our Mission Statement and Values, along with the external regulations and initiatives to which we are committed, give rise to requirements for responsible governance that are integrated in both our Corporate Responsibility strategy (p. 9) and our Group-wide guidelines.

Our Group-wide guidelines comprise charters and principles valid for the entire company, as well as specific standards and procedures for individual business sectors and sites.

Take for example our Corporate Environment, Health and Safety (EHS) Policy, which forms the basis for implementing the chemical industry's Responsible Care® Global Charter. Or our Safety Policy for chemical products, which defines product safety processes and the corresponding management structures.

How we live responsible governance

Derived from the provisions contained in charters, principles and policies, our internal standards give specific guidance to those responsible for operational processes. They are constantly updated by the relevant departments and are available on our Intranet. Our managers implement these standards in their respective areas of responsibility and ensure that they are adhered to. We moreover educate and train our employees on all guidelines that apply to them.

We employ management systems to steer processes as well as define goals, actions and responsibilities. These systems are based on standards such as the internationally recognized quality management standard ISO 9001, good working practices (GxP) in the pharmaceutical industry, and ISO 14001 for environmental management. We regularly undergo ISO 14001 and ISO 9001 certification, which is conducted by an independent auditing firm, and hold Group certificates for both.

We support the following responsible governance initiatives:

- **The United Nations Global Compact:** Since 2005, we've been a member of the United Nations Global Compact and are committed to complying with its principles. Our annual progress report illustrates how we live our responsibility in our day-to-day actions.
- **Responsible Care®:** As a signatory to the chemical industry's Responsible Care® Global Charter, we voluntarily go above and beyond what is required by law and have adopted mandatory standards for product responsibility, environmental impact mitigation, health, and safety.
- **Together for Sustainability:** As a member of the Together for Sustainability (TfS) network, we are dedicated to improving the supply chain with respect to environmental, compliance and social standards.
- **Chemie³:** We are a member of Chemie³, a collaboration between the German Chemical Industry Association (VCI), the German Employers' Federation of the Chemical Industry (BAVC), and the German Mining, Chemical and Energy Industrial Union (IG BCE). Through this globally unique alliance, the partners aim to make sustainability a core part of the chemical industry's guiding principles and to jointly drive the sector's position within the German economy as a key contributor to sustainable development. This initiative has developed a system of 40 indicators to measure the progress of sustainable development within the chemical industry.

CR strategy



Part of the non-financial report

Mankind is facing major global challenges such as climate change, growing resource scarcity, aging populations, threats to human rights, and barriers to health – the latter particularly in low- and middle-income countries. To overcome these issues, not only policy makers and civil society but also the private sector must join forces to find solutions.

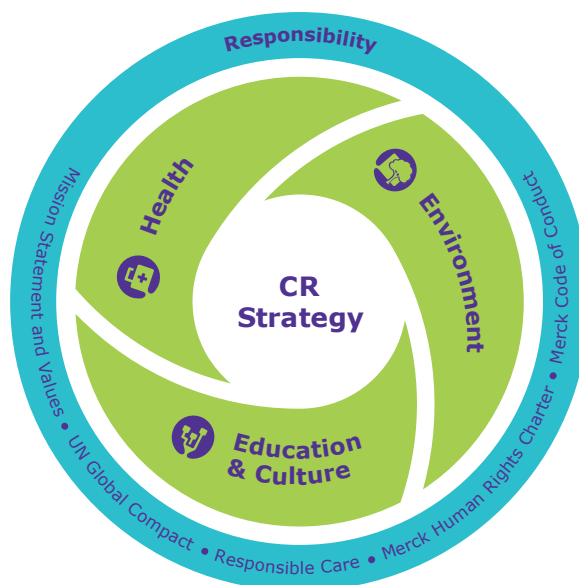
Our approach: Looking, listening and doing better

We are aware that as a leading science and technology company our business operations impact our environment

and the people around us, which is why we've made responsible conduct a pillar of our corporate culture. This approach is also the foundation of our sustained success. Through our innovative top-quality products for the healthcare, life science and performance materials sectors, we seek to help resolve global challenges.

Our Group strategy aims to maximize our success, which goes hand in hand with respecting the interests of our employees, customers and shareholders, as well as those of the community. Our Group strategy underpins our corporate responsibility (CR) strategy. All our CR activities fall under the heading of "responsible governance", which for us most importantly means looking, listening and doing better.

Our CR strategy



We take responsibility for our products, the environment and the people around us – especially for our employees and the communities in which we operate. Through our products, we endeavor to meet people's current and future needs. In doing so, safety and ethical aspects matter just as much to us as business success. In our production activities, we seek to impact the environment as little as possible, which requires safe manufacturing techniques, high environmental standards and strict quality management. Furthermore, we strengthen our company by recruiting, developing and moti-

vating talented employees. We strive to set an example for ethical conduct and actively contribute to the communities we live in.

We aim to quickly identify new global trends and challenges, for instance by fostering dialogue with stakeholders (p. 19), participating in initiatives and engaging other companies, as well as by evaluating media coverage. This allows us to minimize risks while also leveraging business opportunities that arise. In our efforts, we have chosen to pursue three

strategic spheres of activity, namely health, the environment, and culture & education.

Health

An estimated 400 million people lack access to adequate, affordable health care. Through our Group-wide Access to Health strategy, we seek to eliminate barriers in low- and middle-income countries in an effort to provide underserved populations and communities in these countries with better, sustainable access to high-quality health solutions. Developments such as rising life expectancy and simultaneously declining birth rates are also reflected in our health solutions, including our cancer research, for instance, or our fertility treatments. You can find more information under Access to health (p. 38).

Environment

Many of our innovative products from our Performance Materials and Life Science business sectors help mitigate environmental impacts. Moreover, we strive to continuously enhance the sustainability footprint of our products while also helping our customers achieve their own sustainability goals.

As the global market and technology leader in liquid crystals, we are driving the creation of state-of-the-art, energy-efficient displays. Furthermore, we are developing materials for energy-saving lighting and photovoltaics, one of the ways we're tackling the issue of climate change and energy scarcity. You can find more information under Sustainable product design (p. 32).

Education & culture

Culture inspires people and opens their minds to new possibilities, which is why we promote cultural initiatives worldwide and support education projects. After all, education is key to making culture accessible. Cultural inspiration in turn nurtures characteristics that are essential to our business activities as a high-tech company, such as creativity, enthusiasm for new discoveries and the courage to transcend boundaries. You can find more information under Community (p. 110).

Corporate responsibility entwined with governance

Our CR strategy is approved by our Executive Board, which meets regularly to make decisions regarding our CR goals and reporting. Also charged with overseeing corporate responsibility, our Group function Corporate Affairs was created in September 2017 and reports to Stefan Oschmann, Executive Board Chairman and CEO. Oschmann bears overall responsibility for the committee, which is chaired by the head of Corporate Affairs.

Our CR Committee steers the implementation of our CR strategy and submits recommendations regarding CR goals to the Executive Board. This council consists of representatives from our business sectors as well as from relevant Group functions such as EQ, HR, Compliance, and Procurement.

Our CR Committee also reviews our CR strategy to ensure that it covers the issues relevant to our company. In doing so, we draw on regular input from our stakeholders (p. 19) as well as the results of a materiality assessment (p. 22). This council also defines measures to put our CR strategy into practice and reviews the success of these efforts. In addition, it ensures that the initiatives of our business sectors, Group functions and subsidiaries align with our Group-wide CR strategy. The measures adopted by the CR Committee are implemented by our line managers as well as by interdisciplinary project teams.

The CR Committee meets three times a year. In 2017, its meetings primarily focused on human rights, environmental and social standards along the supply chain, environmental targets, animal welfare, bioethical principles, and community involvement.

Taking on responsibility worldwide

Our corporate responsibility activities align with the United Nations Sustainable Development Goals (SDGs). Here, we focus particularly on those SDGs that best reflect our business ethos. You can find more information on our efforts to support these goals under Sustainable Development Goals (p. 161).

Understanding and minimizing the impacts of our operations

We work to mitigate the ethical, financial and legal risks of our business activities, thereby ensuring our social license to operate. To this end, we have put comprehensive structures and systems in place to ensure compliance with legal requirements, along with ethical, social and ecological standards, which are explained in detail in the individual sections of this report. Our environmental management activities, for instance, aim to minimize environmental impacts at our production sites.

compliance



Part of the non-financial report

First and foremost, responsible entrepreneurship means acting in accordance with the law, a practice also known as compliance. All our activities must adhere to laws and regulations worldwide because compliance violations might not only involve legal prosecution but could also seriously compromise our reputation as an employer and business partner.

Our approach to compliance

Compliance is one of our primary considerations worldwide. Particularly as an international company with operations in developing and emerging countries, we have extremely stringent requirements for effective compliance management. Yet for us, there is more to compliance than adhering to regulatory provisions. We consistently aspire to act in accordance with the principles defined in our Values and believe that profitability should go hand in hand with the very highest ethical standards.

How we ensure compliance

Our Group Compliance organization manages the core topics of anti-corruption, antitrust, data privacy, dawn raid preparedness, healthcare compliance, and transparency reporting. Other compliance related issues are managed by the responsible functions (such as Quality, Pharmacovigilance, and Environment, Health, and Safety (EHS)). To cover the core compliance topics, we have Group-wide compliance policies, procedures and processes in place to ensure that our business activities align with the relevant laws and regulations.

Supported by our Group Compliance organization, our Group Compliance Officer is responsible for our compliance program, which consists of the following elements:

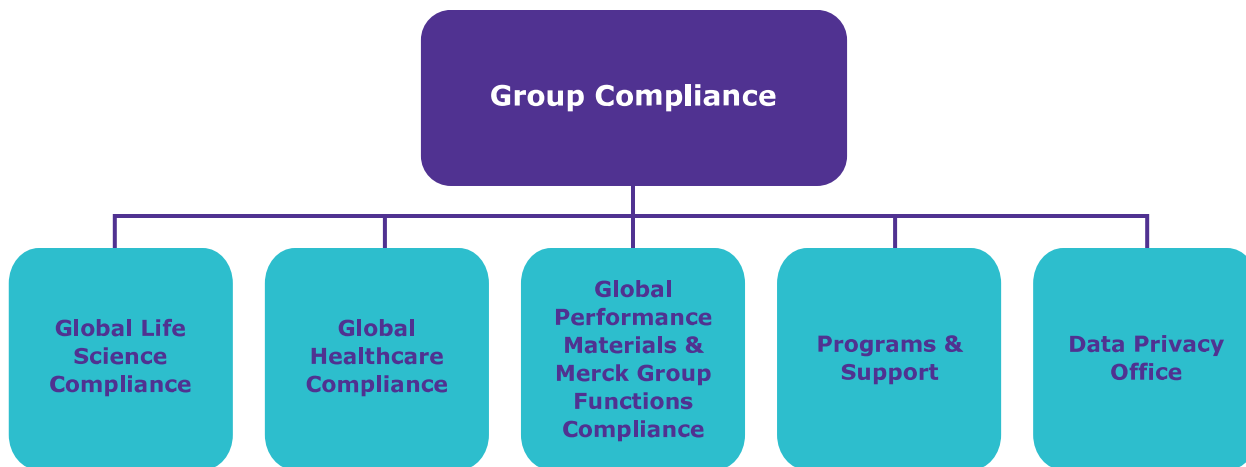
- Efficient solution oriented systems and processes
- Enabling policies
- Monitoring and controls
- Case management
- Anonymous reporting
- Continuous improvement tailored to business risks
- Target-group focused training

Our compliance program is regularly updated to reflect new requirements such as those resulting from amendments to legislation, relevant industry codices or changes within our company.

The Group Compliance Officer reports to the Executive Board every six months on the status of our compliance activities, possible risks and serious compliance violations. In turn, the Executive Board updates our supervisory bodies at least twice a year on key compliance issues. As part of regular reporting processes, we annually compile a comprehensive compliance and data privacy report detailing the status of our compliance program, updates that have been made, compliance and data privacy cases, and training figures. Additionally, an update is prepared at the mid-year mark highlighting current developments and the status of relevant projects and initiatives.

Worldwide, our Group Compliance Officer oversees 79 Compliance Officers who are assigned to business sector teams and implement the measures of our compliance program within their respective areas of responsibility. In executing their tasks, these Compliance Officers receive guidance from our Group Compliance Programs & Support team, a centralized body that drives the design and update of our compliance program across all business sectors and Group functions and is responsible for initiating necessary measures.

Compliance organization



In addition to these efforts we have created a global Transparency Operations team to incorporate current and upcoming **transparency reporting requirements in the health sector** – such as those of the European Federation of Pharmaceutical Industries and Associations (EFPIA) and the U.S. Physician Payments Sunshine Act.

Since 2017, our compliance framework has been integrated more closely within the business sectors. For example, we are developing a new holistic concept that combines the existing monitoring controls into a single system, providing a dashboard view of potential compliance risks across the organization.

In updating guidelines and training curricula, we also link compliance requirements specific to each business sector by integrating them into employee training material.

To support local Compliance implementation, we introduced designated Compliance Ambassadors who operate independently of our Compliance Organization. We appointed ambassadors in the following regions:

- Africa: Algeria, Angola, Botswana, Egypt, Ghana, Kenya, Mauritius, Morocco, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Tunisia, Uganda
- Middle East: Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen
- South America: Argentina, Chile
- China
- Germany

Clear chain of command for reporting violations

Reports of potential compliance violations received via our SpeakUp Line are reviewed by Group Compliance before being submitted to the Group Compliance Case Committee, which consists of senior representatives from Internal Auditing, Group Compliance, Corporate Security, Data Privacy, and Human Resources. Stefan Oschmann, Executive Board Chairman and CEO, heads the committee. An associated sub-committee advises on disciplinary action if necessary.

Conflicts of Interest

We take all potential conflicts of interest seriously. Every conflict is disclosed to the employee's supervisor and the disclosure is documented. Such issues are mainly managed in a direct relationship between employee and supervisor, but can also be routed to superior HR or employment law functions. To involve the Executive Board, we have implemented a specific governance process, including a periodical request for information on potential conflicts to be provided to shareholders and related parties.

Furthermore, we document our commitment to an appropriate conflict of interest process in our Annual Report.

Data Privacy integrated into Compliance

Our Data Privacy unit has been organizationally integrated into Group Compliance. As required by law, this unit acts independently and compiles a comprehensive data privacy report as a part of the compliance report. Furthermore, the Data Privacy team submits regular data privacy updates as part of our overall Compliance reporting. Since 2017, the team has comprised four employees in Darmstadt. We have Data Safety Officers in place at numerous sites.

Our commitment: Guidelines and standards

Our compliance program builds on our Values and integrates these into our compliance framework, which contains guidelines for entrepreneurial conduct that are mandatory for all our employees Group-wide:

- The Merck Code of Conduct provides our people with a tool that promotes ethical business practices. At the end of 2017, we started the roll-out of an updated version of our Code of Conduct called "What guides us". Approved by the Executive Board, this version has a strong relation to our Values along with newer topics such as data protection, supplier due diligence and bioethics. The updated code is available to employees both digitally and as a print brochure. Available in 22 languages, it explains the principles for interacting with business partners, employees, and the communities in which we operate.
- Our Human Rights Charter supplements our Code of Conduct with globally valid principles regarding human rights as well as the core labor standards of the International Labour Organization (ILO).
- Our Anti-Corruption Policy stipulates that all business activities must be conducted in accordance with legally applicable anti-corruption standards. All forms of bribery – whether giving or receiving – are strictly prohibited. We have reinforced our policy by adding and updating relevant corruption prevention sections. One example is the changes made to the gifts and hospitality section. Additionally, we have created guidelines on local limits and thresholds in giving or receiving gifts and hospitality to or from third parties (including public officials and external business partners). Moreover, in 2017 we also incorporated our Global Business Partner Risk Management principles into our Anti-Corruption Policy.
- Our Pharma Code (for prescription medicines) and our Consumer Health Code (for over-the-counter medicines) set out key principles for interactions with our partners in the health industry.
- Our Group-wide Antitrust and Competition Law guideline stipulates that all business activities across the Group are to be carried out in compliance with applicable competition regulations at all times. We acknowledge the importance of fair competition and expect the same of contract organizations acting on our behalf.

Since 2016 we have been using an online confirmation process to send Group-wide policies to relevant managers, Group Compliance and Legal. Recipients then confirm not only receipt of the policies, but also that they are being adhered to and implemented appropriately at the relevant sites.

Guidelines for new business units

Where necessary, we update our policies according to external requirements. In 2017, we integrated the Medical

Devices and Services unit into the scope of existing Biopharma Compliance policies and created separate legal and compliance guidance for business interactions with our key stakeholders.

We recognize the fact that we are increasingly **interacting with patients and patient organizations** and therefore revised our corresponding compliance policy.

Requirements for our business partners

To be effective, compliance management needs to go beyond the boundaries of our own company, which is why we expect all our business partners worldwide to comply with our compliance principles. We only collaborate with partners who pledge to comply with all applicable laws, reject all forms of bribery, adhere to environmental, health and safety guidelines, and refuse to tolerate discrimination. Furthermore, we contractually require our business partners to demonstrate a commitment to internationally recognized human rights and labor standards, as well as to our own compliance requirements. We also monitor adherence to these standards for existing business relationships – usually when a contract is being considered for renewal, or alternatively at least every four years.

While our supplier management processes (p. 104) focus on vendor compliance with our standards, our Global Business Partner Risk Management Process governs interactions with sales partners such as distributors and wholesalers. Our Business Partner Risk Management approach was updated in 2017 and integrated into our Anti-Corruption Policy.

In general, we are not able to negotiate social and environmental responsibility, compliance or integrity issues with each of our customers individually. Therefore in 2017, our Performance Materials business sector compliance team developed a global approach for responding to external Code of Conduct acknowledgment requests. To implement this framework, our Performance Materials Compliance team introduced the Merck Corporate Responsibility Letter and a correlation clause, starting with the Performance Materials business sector.

Harmonizing data privacy Group-wide

Our "Policy for Data Protection and Personal Data Privacy" defines the standards according to which we process, save, use, and transmit data. This approach allows us to achieve a high level of protection for the data belonging to our employees, contract partners, customers, and suppliers, as well as patients and participants in clinical studies. Our **Group-wide understanding of data privacy** is based on European and German legislation. However, we also take into account local data privacy requirements, as not all requirements at all sites are covered by EU standards. In case of doubt, the respective national legal obligations take precedence. Whatever the situation, we fundamentally respect the rights of those affected.

We are already applying the new requirements of the European General Data Protection Regulation. In line with this regulation, we have established working groups to review the compliance of our various business units and improve existing measures where necessary.

Compliance audits

As part of operational audits, our Group function Internal Auditing regularly reviews matters relating to compliance at our sites to determine which compliance guidelines, processes and structures are in place and how effective they are. In addition, Internal Auditing also checks for violations of our Code of Conduct and our Anti-Corruption Policy, and reviews the workplace requirements set out in our Human Rights Charter.

Our audit planning aims to provide comprehensive risk assurance through the best possible audit coverage. Our annual audit planning process is risk-based and includes factors such as sales, employee headcount, systematic stakeholder feedback, and the Corruption Perceptions Index (CPI) published by the non-governmental organization Transparency International. If an internal audit results in recommendations, Group Internal Auditing performs a systematic follow-up and monitors the implementation of the prescribed corrective actions.

Compliance training

We regularly provide compliance training in the form of **classroom and online courses** that cover our Code of Conduct, anti-corruption, antitrust awareness, data privacy, and healthcare compliance standards. These courses are attended by employees at all levels as well as independent contractors and supervised workers (such as temporary staff). We regularly update our training plan and adapt it to new developments.

11,521

people were trained on our Code of Conduct and sensitized to the consequences of compliance violations through our e-learning system in 2017. A further component of this training focuses on preventing compliance violations.

We are currently working on a **business sector-specific e-learning program** centered on our new Code of Conduct. We plan to roll this program out in 2018.

We continually educate our employees on new compliance requirements, guidelines and projects, and also offer an

online course on our Anti-Corruption Policy **in 15 languages**. In 2017, a total of 7,315 employees and contractors took part in anti-corruption training.

Some seminars on special topics are specifically developed for professionals in certain roles. When participating in pharma-specific training, for example, employees in our Healthcare business sector also receive training on relevant compliance issues.

To complement the online courses we offer, numerous classroom courses are also held for employees Group-wide with a particular focus on local issues. In 2017, we furthermore developed a game for our sales representatives that **simulates typified behaviors** tailored to a multitude of compliance scenarios that our sales heads experience on a regular basis.

In addition to these training offerings, Group Compliance has partnered with our Chief Medical Office team to develop a training course for our Medical employees. Accessible via our education portal, this course comprises important modules containing compliance-related topics such as Medical Education Funding (p. 71), Medical and Commercial Interactions (p. 70) and Patient Support Programs (p. 46). The course is also open to all interested employees, including those from other units.

We also regularly provide data privacy training courses that new employees must complete, focusing especially on data privacy rules and the **new European General Data Protection Regulation**. Furthermore, we keep all employees up to date through regular refresher training.

"Compliance. Because we care"

Our internal "Compliance. Because we care" initiative aims to increase awareness of compliance throughout our Group. Harnessing the power of emotion, we have incorporated evocative visuals to bring key compliance aspects closer to our employees, thus heightening their sensitivity to these issues. Launched in 2017, the initiative is being implemented gradually Group-wide.

In addition to providing training in the form of webinars, Skype meetings and on-site events, we inform our staff about compliance issues through a variety of media, including our Intranet, newsletters, our employee magazine "pro (p. 83)", and posters.

SpeakUp Line for potential compliance violations

All Group employees are encouraged to report potential compliance violations to their superiors, Legal, HR, or other relevant departments. Worldwide, they can also use our central SpeakUp hotline to report violations by telephone or via a web-based application **in their respective national**

language, free of charge – and, if desired, anonymously. Based on recommendations from the Group Compliance Case Committee, where necessary disciplinary actions may also be taken by the responsible superiors against employees who have committed a compliance violation. These actions may range from a simple warning to dismissal of the employee, depending on the severity of the violation. Our Business Partners who have undergone the Business Partner Risk Management Process can also use the SpeakUp Line to report violations of internal or external rules.

Both the number of reports of suspected compliance violations and the number of actual compliance cases has remained largely stable in recent years. In 2017, 39 compliance-related reports leading to investigations were received via the SpeakUp Line and other channels. In 2017, there were 14 confirmed cases of violations of the Code of Conduct. The majority of these constituted minor, isolated incidents resulting from the misconduct of individual persons, and appropriate disciplinary action was taken. One case concerned a testing facility and comprised issues relating to site management as well as control deficiencies in certain areas. Another case related to interactions with healthcare professionals and organizations where local practices did not meet the requirements of our Group policy.

Risk analysis and management of business partners

We apply a risk-based approach to selecting sales-related business partners. The greater we estimate the risk to be regarding a certain country, region or type of service, the closer and more carefully we examine the company before entering into a business relationship with them. For these risk assessments, we use the Corruption Perceptions Index (CPI) maintained by Transparency International and assess potential partners against other parameters such as the nature of the intended service. We also tap into background information from various databases and information reported by the business partners themselves, for instance on their own compliance programs.

In 2017, we re-designed our Business Partner Risk Management Process and automated certain processes. This change allows us better scrutiny of our business partners in high-risk environments such as countries with a CPI rating below 50 (0 = highly corrupt/100 = very clean). This enables us to further reduce legal and reputational risks that may arise from bribery committed by third parties.

If we encounter compliance violations, we decide whether to reject the potential business partner or terminate the existing relationship. However, our partners are generally willing to adapt their structures and processes in line with our strict compliance requirements. Since launching this process in 2013, we have assessed more than 2,800 business partners, and in 2017 we used this process to assess 690 new business partners.

In 2017, we continued our compliance training for the employees of our business partners as part of our Business Partner Risk Management Process. This training is mandatory for all personnel who come into contact with our company or products. It is available in eight languages and focuses on general compliance, corruption prevention and competition law. In 2017, 3,699 employees from our partner companies completed this training.

Ensuring data privacy and information security

We operate a data privacy management system as part of our Group Compliance organization. This system has been harmonized across the Group. Moreover, we also protect our information systems, their contents and our communication channels against criminal activities (eCrime, cyber attacks) of any kind, including unauthorized access, information leaks and misuse. To do so, we work with our Group Security unit to undertake a variety of technical, organizational and process-based measures based on recognized international standards. We have harmonized electronic and physical security measures (such as access control) to bolster our ability to handle sensitive data such as trade secrets. Group Internal Auditing verifies that we are implementing and complying with our data privacy policy and data security programs.

Our data privacy management system aligns with the PDCA principle (plan, do, check, act), which is intended to ensure that data privacy policies and tools (plan), data privacy training (do), inspections and assessments (check), and an incident and issue management process (act) are all in place.

To support local Data Privacy Officers at our sites, we have introduced **standardized data privacy consulting services** that can be requested by data controllers and processors as needed. We have also implemented a central IT tool to provide a single source for data privacy processes, e.g. answering data privacy questions and reporting potential data privacy incidents.

EFPIA Transparency Initiative

Since 2016, members of the Transparency Initiative of the European Federation of Pharmaceutical Industries and Associations (EFPIA) have been required to publish all contributions to medical professionals and organizations in the health sector, along with the names and addresses of individual recipients. Beyond this initiative, several countries have introduced legislation to further increase transparency in the pharmaceutical industry. We comply with these requirements and additional standards governing interactions in the healthcare industry (p. 70) and have been including them in our EFPIA reporting since 2016.

Alliance for Integrity

We are a member of the Alliance for Integrity Steering Committee. Established by the German Society for International Cooperation (GIZ), the German Global Compact Network (DGCN) and the Federation of German Industries (BDI), this initiative aims to achieve a **corruption-free business world in developing and emerging countries**. Its activities are concentrated in Argentina, Brazil, Ghana, India, and Indonesia. The Steering Committee leads the decision-making process for developing measures in these countries, while local advisory groups oversee implementation at the country level. Our local Compliance organizations also collaborate with these groups and provide training that is offered to small and medium-sized companies. We furthermore support anti-corruption conferences such as the World Conference hosted by the German Chamber of Commerce, which will be held in February 2018 in Frankfurt. Beyond these efforts, we continuously assist the Alliance for Integrity through business-to-business workshops and training

courses, and by sharing best practices on how to develop and implement effective corruption prevention systems.

Engaging stakeholders

In 2017 as well, we engaged stakeholders in a dialogue primarily through our memberships in various associations. Amongst other organizations, we are members of the German Chemical Industry Association e.V. (VCI), the German Institute for Compliance (DICO), the European Federation of Pharmaceutical Industries and Associations (EFPIA), the German Association of Voluntary Self-Regulation for the Pharmaceutical Industry (FSA), the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA), the Alliance for Integrity, and the German Association for Supply Chain Management, Procurement and Logistics e.V. (BME).

HUMAN rights

First and foremost, all nations have a duty to establish a regulatory framework to protect human rights. Particularly for international enterprises, it is important for this framework to be implemented across all countries to level the playing field for competition. As a company, we in turn also have a duty to uphold human rights, taking steps to ensure that they are not compromised by our business activities. We are constantly working to integrate human rights due diligence into our processes in an effort to minimize the risk of human rights violations and to protect these rights within our sphere of influence.

Our approach to human rights due diligence

We are committed to upholding and protecting human rights. To this end, we seek to better understand the potential impact of our business activities and relationships on human rights. Moreover, we examine our processes to identify the practices already in place at our sites that fulfill the function of human rights due diligence. This knowledge helps us adapt our Group-wide human rights due diligence efforts to better meet local needs and adapt our processes in response to the respective risk profiles. In doing so, we can develop approaches to overcome particular challenges. At the same time, we are working to identify the opportunities presented by the positive impacts of our operations.

Within the German Global Compact Network (DGCN), we are a member of the Business & Human Rights Peer Learning Group, a working group in which we engage with other companies to share lessons learned as well as successes in implementing human rights due diligence.

How we promote respect for human rights

Our Executive Board bears ultimate responsibility for upholding human rights within our organization. Our Group function Corporate Affairs handles the coordination of activities and processes relating to human rights due diligence. Progress and measures are regularly discussed at CR Committee meetings, while subject matter experts within our Group functions, business sectors and local units are in charge of implementing measures.

Our commitment: Guidelines, charters and laws

Our Human Rights Charter affirms our commitment to respecting human rights while also defining the relevant requirements for our company. This charter furthermore unites and complements existing policies and guidelines on

human rights such as our Code of Conduct, our Corporate Environment, Health and Safety Policy, our Responsible Sourcing Principles, and our Charter on Access to Health in Developing Countries. Our Human Rights Charter was developed in collaboration with human rights experts from various countries, including representatives from trade unions and business federations.

At the end of 2016, the German federal government adopted a **National Action Plan for implementing the UN Guiding Principles for Business and Human Rights** (NAP). We are committed to these principles, which codify the duty of states to protect human rights as well as the responsibility of companies to uphold them, providing a framework for how nations and businesses should do so. Through our current efforts and initiatives, we are on the right track to fulfilling the requirements stipulated in the National Action Plan.

In the United Kingdom, the **UK Modern Slavery Act** requires us to report on the steps we are taking to counter forced labor and human trafficking. Our company issued its first UK Modern Slavery Statement in 2017. This statement has been endorsed by our Executive Board and is available on our website.

Constantly improving our risk management

Based on the findings from our 2012 Group-wide human rights risk assessment and our 2014 human rights impact assessment pilot in India, all our subsidiary heads conducted a human rights self-assessment at the end of 2016. Using an electronic survey we created, they provided detailed information on the main subject areas covered by our Human Rights Charter. This survey will help us better understand how our subsidiaries perceive human rights risks and manage them locally, while also raising human rights awareness and creating a foundation for systematic support.

In 2017, we evaluated the results of the survey and held discussions with subject matter experts in Group functions such as Procurement, Human Resources and Compliance. The conclusion was that our subsidiaries are thoroughly aware of human rights risks, guidelines and processes. This includes their employees' work conditions, potential product impacts, data protection, privacy protection, and access to health. Many of our subsidiaries also displayed sound knowledge of and great interest in human rights. At the same time, we identified some areas where we can improve. Regarding several issues, we need to increase risk awareness within our subsidiaries and must work to implement due diligence more stringently, embedding this approach more deeply at the operational level. We intend to use these findings to make our Group-wide approach to risk management more

effective. In the course of enhancing our processes, we will implement risk-based measures to increase awareness of slavery (such as forced labor and human trafficking) within the Group. Furthermore, in an effort to constantly improve ourselves, we will be reviewing our mitigation actions with respect to external staff, product and service sourcing, and collaboration with local contract partners.

In September 2017, we launched an electronic confirmation course for our Human Rights Charter as one of the first follow-up actions from our human rights self-assessment. This course is mandatory Group-wide for all site directors as well as all managers directly below Executive Board level. Procurement executives from the second and third managerial tiers below the Executive Board are also required to take the course, which focuses on modern slavery and the increasing regulatory requirements for companies such as those set out in the National Action Plan and the UK Modern Slavery Act. By taking the course, participants confirm that they have read and understood our Human Rights Charter, and are implementing it within their area of responsibility.

In early December 2017, we informed all self-assessment participants of the aggregated results and called on them to take steps within their sphere of responsibility to implement

the corrective actions identified. Furthermore, we've used the results to formulate numerous measures aimed at reinforcing human rights due diligence within our company. In 2018, for instance, we plan to review our company's existing grievance mechanisms, focusing particularly on their scope and effectiveness.

Human rights and investment decisions

When projects exceed a certain cost threshold, our Investment Committee must approve the expenditure. The committee's decision takes into account factors such as environment, safety and health. When it comes to investment projects, we are also bound by our Code of Conduct, which stipulates compliance with the principles of the UN Global Compact and therefore also with the core labor standards of the International Labour Organization (ILO), such as the prohibition of child and forced labor.

Keeping employees informed

We use a variety of channels to educate our employees on human rights, including specific Intranet sites along with videos and other articles featuring employees explaining how their work intersects with human rights.

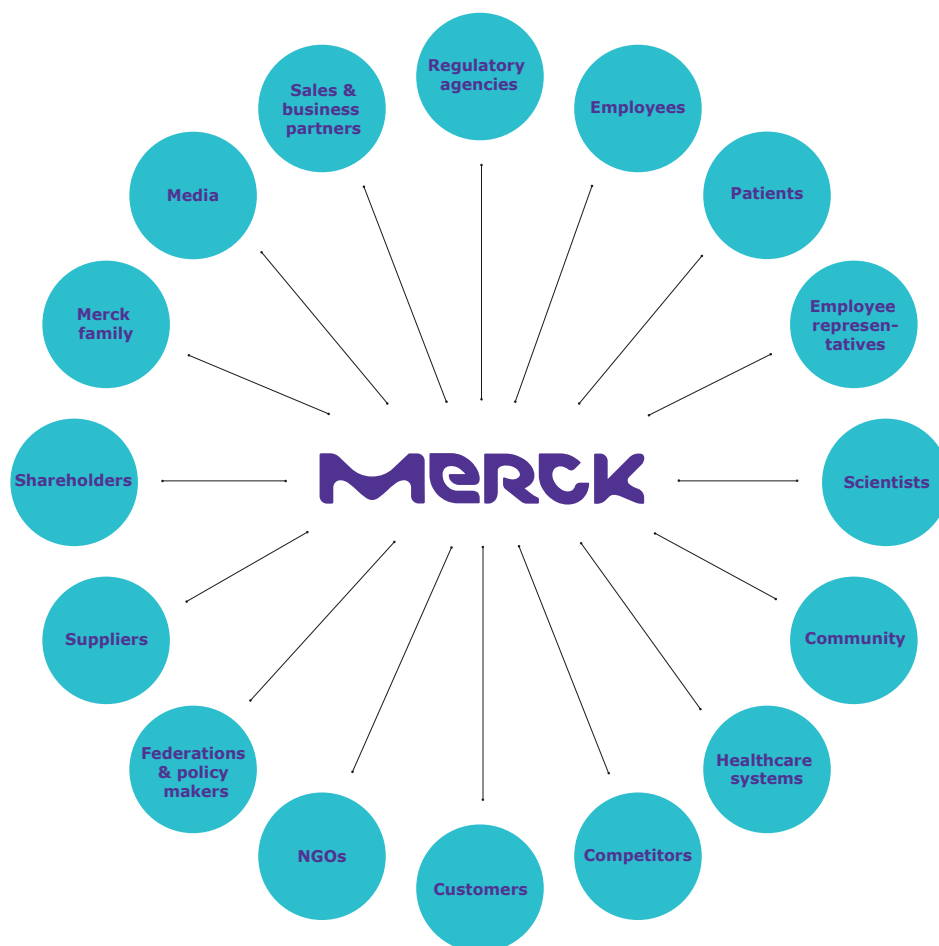
stakeholder dialogue

Our business activities converge with the interests of many people, which is why engaging with our stakeholders is particularly important to us. We aim to unite divergent interests as far as possible, as well as build and sustain trust. Through this dialogue, we communicate our decisions and actions transparently in an effort to ensure social license to operate.

Dialogue at various levels

Our key stakeholders include our employees, customers and business partners, patients, the Merck family, and our suppliers. We maintain continuous contact with them through a variety of channels, including stakeholder surveys, issue-specific dialogues, roundtable discussions, and information forums. We also engage stakeholders through our advocacy work and industry coalitions.

Our stakeholders



Regular stakeholder surveys

We regularly conduct surveys among our employees, customers and business partners, as well as other relevant stakeholder groups. We want to know which issues they consider to be of importance to our company now and in the future, along with how they rate our performance in addressing the individual issues. We also seek to understand their expectations of us as a responsible company. Our CR Report reflects the results of these surveys and presents the actions we've taken in response.

In November 2017, we conducted a Group-wide employee survey in 22 languages. Around 42,100 employees took part, representing an 84% response rate.

Issue-specific dialogue

Our business operations in the areas of healthcare, life science and performance materials intersect the interests of various social groups, whom we engage via questionnaires, workshops and seminars, or even at major conferences. Our departments organize such forms of exchange at the local, national and international level, depending on the topic and degree of importance. Beyond this, we are also involved in industry networks and participate in symposia. In 2017, we intensified our efforts in the following areas:

Improving access to health: As part of our aim to improve access to health in low- and middle-income countries, we continuously engage various stakeholders through channels such as our Access Dialogues, which in 2017 focused on open innovation, intellectual property, and local supply chain challenges. Launched in 2013, this event series provides a platform for public and private sector stakeholders to exchange important information and share best practices pertaining to access to health. You can find more information under Access to health (p. 38).

Sourcing mica responsibly: In November 2017, we attended the Delhi kick-off of the Responsible Mica program, which was launched in response to the 2016 Mica Summit. As founding members, we are committed to increasing the traceability of mica all along the supply chain and to improving the living conditions of the communities in the mining regions. At the event, members endorsed a five-year action plan that defines steps for establishing a responsible and completely traceable mica supply chain. Further information can be found under Mica supply chain (p. 106).

Partnering with pioneers: We seek to engage with pioneers who look far into the future and develop cutting-edge technologies. To this end, we established the annual Displaying Futures symposium, which was held for the eighth time in 2017. Under the banner of "Digital Transformations", we convened in Tokyo (Japan) to examine digital transformation from different angles and explore new societal trends. At this conference we asked ourselves how we could use our

Performance Materials products to advance various ideas and serve as a source of inspiration. We also discussed how to guide research and development efforts onto the right track from the very beginning. Further information can be found under Sustainable product design (p. 32).

Roundtables and informational forums

We have set up roundtable discussions and informational forums for local residents at our major sites. Since 1994, we have been holding an annual public planning forum in Darmstadt to discuss the development of our site with members of the city council, local authorities and the community. In 2017, this forum mainly focused on the changes resulting from our ONE Global Headquarters initiative (p. 82), particularly the new sewer system being laid by the City of Darmstadt and the future design of Frankfurter Strasse.

Advocacy groups and industry coalitions

We actively participate in the political process and advocate our views by engaging policy makers in a direct dialogue as well as through our work with industry coalitions. Below are several examples of major national and international industry associations in which we are members and hold positions:

- German Chemical Industry Association e.V. (VCI)
- European Chemical Industry Council (Cefic)
- German Association of Research-based Pharmaceutical Manufacturers e.V. (vfa)
- European Federation of Pharmaceutical Industries and Associations (EFPIA)
- International Federation of Pharmaceutical Manufacturers & Associations (IFPMA)

Examples of positions held by members of our Executive Board include:

Stefan Oschmann, Chairman of the Executive Board and CEO:

- European Federation of Pharmaceutical Industries and Associations (EFPIA), President
- German Chemical Industry Association e.V. (VCI), Board of Directors
- Deutsche Welle, Business Advisory Board

Udit Batra, Executive Board member and CEO Life Science:

- Greater Boston Chamber of Commerce, Board member
- Massachusetts High Technology Council (MHTC), Vice Chair

- University of Delaware College of Engineering, member of the Advisory Council

Kai Beckmann, Executive Board member and CEO Performance Materials:

- Federal Employers' Association for the German Chemical Industry e.V. (BAVC), President
- Darmstadt Rhein Main Neckar Chamber of Industry and Commerce (IHK), Vice President
- Fraunhofer Institute for Computer Graphics Research (IGD), Chairman of the Advisory Board
- Confederation of German Employers' Associations (BDA), Vice President

Walter Galinat, Executive Board member:

- German Chemical Industry Association e.V./Hesse Chapter (VCI Hessen), Chairman of the Hesse Chapter
- Trade Policy Committee of the German Chemical Industry Association e.V. (VCI), member
- Board of Trustees of the Chemical Industry Fund (FCI) within the German Chemical Industry Association e.V. (VCI), member

Belén Garijo, Executive Board member and CEO Healthcare:

- Pharmaceutical Research and Manufacturers of America (PhRMA), Board member

Marcus Kuhnert, Executive Board member and Chief Financial Officer:

- German Committee on Eastern European Economic Relations, member
- Deutsches Aktieninstitut e. V. (DAI), Board member

Involvement in initiatives

We collaborate with numerous civically engaged organizations such as the Goethe-Institute, the Joint Conference Church and Development (pharma dialogue) and the World Environment Center (WEC). Furthermore, we are also involved in initiatives and projects (p. 8) that share our interpretation of responsible entrepreneurial conduct. That is why we support, for instance, the Code of Responsible Conduct for Business and are members of the Chemie³ and Responsible Care[®] initiatives.

Political donations

In general, we do not make donations in the form of financial contributions or services to political parties or related organizations. Donations to holders of political office or candidates for such, as well as to political initiatives, must always comply with the statutes in force in the recipient's country. This approach is stipulated in our internal guidelines. In the United States, political action committees (PACs) have been set up through which our employees can donate money to support political candidates and organizations. Such donations are not made by or on behalf of the company; they are reported to the U.S. Federal Election Commission and publicly disclosed.

Materiality analysis



Part of the non-financial report

Which issues – in terms of our corporate responsibility – are of particular significance to our long-term success? And what expectations do stakeholders have of our company? In an effort to answer these questions, we regularly conduct materiality assessments that aim to rate sustainability topics according to their importance to our company and external stakeholders. This allows us to align our business activities with their priorities. In applying this approach, we fulfill the requirements of the Global Reporting Initiative (GRI), the international framework on which we've based this CR Report, as well as meeting the obligation arising from the CSR Directive Implementation Act that was ratified in Germany in 2017. Consequently, in 2017 we reviewed the results of the comprehensive materiality assessment we conducted in 2016 to ensure they were still up-to-date and relevant.

Validating material issues

In 2016, we conducted a comprehensive materiality assessment in which we evaluated media reports, inquiries from investors and sustainability ratings. We then weighted the issues based on the results of stakeholder surveys and interviews with experts. Both this process and the findings from the materiality assessment were reviewed by internal specialists and the CR Committee (p. 10).

In 2017, the 43 key issues identified in the 2016 materiality assessment were reviewed and validated by experts from the respective business sectors. In doing so, we took account of the latest developments, updating the analysis where necessary.

Our stakeholders rate product responsibility as very important, including product quality, the safety of chemical products, innovation, and research & development. In terms of issues relevant to our company, two additional topics were identified as a result of the validation process: capacity building was deemed an important component of increasing health awareness (p. 47) and our experts also identified genome editing as a key aspect of bioethics (p. 61). Both topics have been integrated into the relevant sections.

The topics rated as material form the focus of this CR Report. Since our stakeholders also expect information and transparency from us regarding less significant issues, we also report on these, albeit in less detail.

Identifying issues for non-financial disclosure

The German CSR Directive Implementation Act obliges us to review the "double materiality" of topics according to Section 289 (3) of the German Commercial Code. The principle of double materiality requires companies to disclose non-financial information when the following two criteria are met: Firstly, the information is necessary to understand the company's business performance, business results and financial situation. And secondly, the information makes it possible to understand how the company's business activities affect non-financial aspects. We have reviewed the double materiality of the issues validated in 2017, which were identified in the 2016 materiality assessment. The issues that fall within the scope of this definition are marked in the materiality matrix.

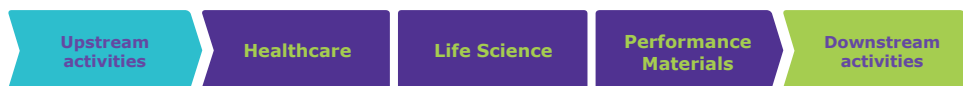
Material topics



☒ Very high importance
 ☒ High importance
 ☒ Medium importance
 Part of the non-financial report

Material issues in our value chain

The following table shows where our main issues fall within the value chain: upstream in our supply chain, in the course of our own activities, or downstream with customers and patients. Moreover, we have listed the issues to show the breakdown of materiality by Merck business sector and stakeholder group. These topics are linked to the respective chapters in this report.



Product safety and quality

Chemical product safety

Material for: Customers, Merck family Shareholders, Government agencies, NGOs, Commercial and business associates

Patient safety

Material for: Merck family, Shareholders, Government agencies, NGOs, Health systems, Patients

Counterfeit products

Material for: Customers, Merck family, Shareholders, Federations and policy makers, Government agencies, NGOs, Commercial and business associates, Health systems, Patients

Transport and warehouse safety

Material for: Customers, Government agencies, Suppliers, Commercial and business associates, Communities

Labeling of chemicals and other products

Material for: Customers, Federations and policy makers, Government agencies, NGOs, Media, Suppliers, Scientists, Commercial and business associates, Health systems, Communities, Competitors

Pharmaceutical and chemical residues in the environment

Material for: Federations and policy makers, Government agencies, NGOs, Communities

Ethical conduct

Bioethics

Material for: Customers, Federations and policy makers, Government agencies, NGOs, Scientists

Clinical studies

Material for: Merck family, Shareholders, Federations and policy makers, Government agencies, NGOs, Media, Suppliers, Scientists, Patients

Animal welfare

Material for: Government agencies, NGOs, Media, Suppliers, Scientists

Good business practice

Compliance



Material for:

Employees, Merck family, Shareholders, Government agencies, NGOs, Suppliers, Commercial and business associates, Health systems, Competitors

Responsible marketing



Material for:

Customers, Federations and policy makers, Media, Commercial and business associates, Health systems, Patients

Community involvement



Material for:

Merck family, NGOs, Media, Communities

Interactions with health systems



Material for:

Federations and policy makers, Government agencies, NGOs, Health systems, Patients

Governance



Material for:

Employees, Employee representatives, Merck family, Shareholders, Government agencies

Health for everyone

Access to health



Material for:

NGOs, Media, Suppliers, Commercial and business associates, Health systems, Patients

Prices of medicines



Material for:

Merck family, Shareholders, Government agencies, NGOs, Media, Commercial and business associates, Health systems, Patients

Medicines to combat rare and neglected diseases



Material for:

NGOs, Scientists, Health systems, Patients

Health awareness



Material for:

NGOs, Media, Scientists, Commercial and business associates, Health systems, Patients, Communities, Competitors

Supply chain standards

Supply chain standards



Material for:

Customers, Merck family, Shareholders, Federations and policy makers, NGOs, Media, Suppliers, Competitors

Human rights

Human rights

Material for:

✓	✓	✓	✓	✓
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Customers, Federations and policy makers, NGOs, Media, Suppliers, Communities

Sustainable products

Sustainable product design

Material for:

		✓	✓	✓
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Customers, Scientists

Re-use and recycling of our customers' waste

Material for:

		✓		✓
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Customers

Attractive employer

Diversity and equal opportunity

Material for:

	✓	✓	✓	
--	---	---	---	--

Employees, Employee representatives, Merck family, Media

Attracting, recruiting and retaining employees

Material for:

	✓	✓	✓	
--	---	---	---	--

Employees, Employee representatives, Shareholders, Competitors

Employee development

Material for:

	✓	✓	✓	
--	---	---	---	--

Employees, Employee representatives

Good leadership

Material for:

	✓	✓	✓	
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Employees, Employee representatives

Employee engagement

Material for:

	✓	✓	✓	
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Employees, Employee representatives

Health and safety

Material for:

	✓	✓	✓	
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Employees, Employee representatives, Government agencies

Technology

Innovation and R&D

Material for:



Customers, Merck family, Shareholders, Scientists, Health systems, Patients

Resource efficiency

Waste and recycling

Material for:



Government agencies, NGOs, Communities

Water management

Material for:



Government agencies, NGOs, Communities

Climate change

Energy efficiency and renewable energy

Material for:



Federations and policy makers, NGOs

Greenhouse gas emissions

Material for:



Customers, Federations and policy makers, Government agencies, NGOs, Media, Suppliers