GRI/SASB Disclosures

General Disclosures

See GRI Index on page XX.

Organizational profile

GRI 102-1	Organization name (Core)
GRI 102-2	Primary brands, products, and services (Core)
GRI 102-3	Headquarters location (Core)
GRI 102-4	Location of operations (Core)
GRI 102-5	Ownership and legal form (Core)
GRI 102-6	Markets served (Core)
SASB 000.B	Number of drugs (1) in portfolio and (2) in research and development (Phases 1-3)

We are a global health care company that delivers innovative health solutions through our prescription medicines, vaccines, biologic therapies and animal health products. In the U.S. and Canada, we are known as Merck & Co., Inc., Kenilworth, NJ, U.S.A. Elsewhere we are known as MSD.

Our operations are principally managed on a products basis and include two operating segments:

- Pharmaceutical
- Animal Health

Operating segments

Our Pharmaceutical segment includes human health pharmaceutical and vaccine products. Human health pharmaceutical products consist of therapeutic and preventive agents, generally sold by prescription, for the treatment of human disorders. We sell these human health pharmaceutical products primarily to drug wholesalers and retailers, hospitals, government agencies and managed health care providers

such as health maintenance organizations (HMOs), pharmacy benefit managers (PBMs) and other institutions. Human health vaccine products consist of preventive pediatric, adolescent and adult vaccines, primarily administered at physician offices. We sell these human health vaccines primarily to physicians, wholesalers, physician distributors and government entities.

The Animal Health segment discovers, develops, manufactures and markets a wide range of veterinary pharmaceutical and vaccine products, as well as health management solutions and services, for the prevention, treatment and control of disease in all major livestock and companion animal species. We also offer an extensive suite of digitally connected identification, traceability and monitoring products. The primary customers for our animal health products are veterinarians, distributors and animal producers.

A list of our pharmaceutical products can be found on pages 2–6 of our 2020 Form 10-K.

Locations

Our corporate headquarters are located in Kenilworth, New Jersey, U.S.A. We previously announced that we intend to consolidate our New Jersey campuses into a single corporate headquarters location in Rahway, New Jersey, by the end of 2023. We also maintain operational or divisional headquarters in Madison, New Jersey and Upper Gwynedd, Pennsylvania.

Our principal U.S. research facilities are located in Rahway and Kenilworth, New Jersey; West Point, Pennsylvania; Boston, Massachusetts; South San Francisco, California; and Elkhorn, Nebraska (Animal Health). Principal research facilities outside the U.S. are located in the United Kingdom, Switzerland and China. Our manufacturing operations are headquartered in Whitehouse Station, New Jersey.

The production facilities for our human health products include nine locations in the U.S. and Puerto Rico. Outside the U.S., through subsidiaries, we own or have an interest in manufacturing plants or other properties in Japan, Singapore, South Africa, and other countries in Western Europe, Central and South America, and Asia. A number of properties transferred to Organon in the spinoff.

Our operations outside the U.S. are conducted primarily through subsidiaries. Sales worldwide by subsidiaries outside the U.S. as a percentage of total company sales were 56 percent in both 2020 and 2019 and were 57 percent in 2018.

The principal market for trading of our common stock is the New York Stock Exchange (NYSE) under the symbol MRK. As of January 31, 2021, there were approximately 104,900 shareholders of record of the company's common stock.

You can find a full list of our products, as well as our pipeline, on our corporate website.

For more information, also see our 2020 Form 10-K.

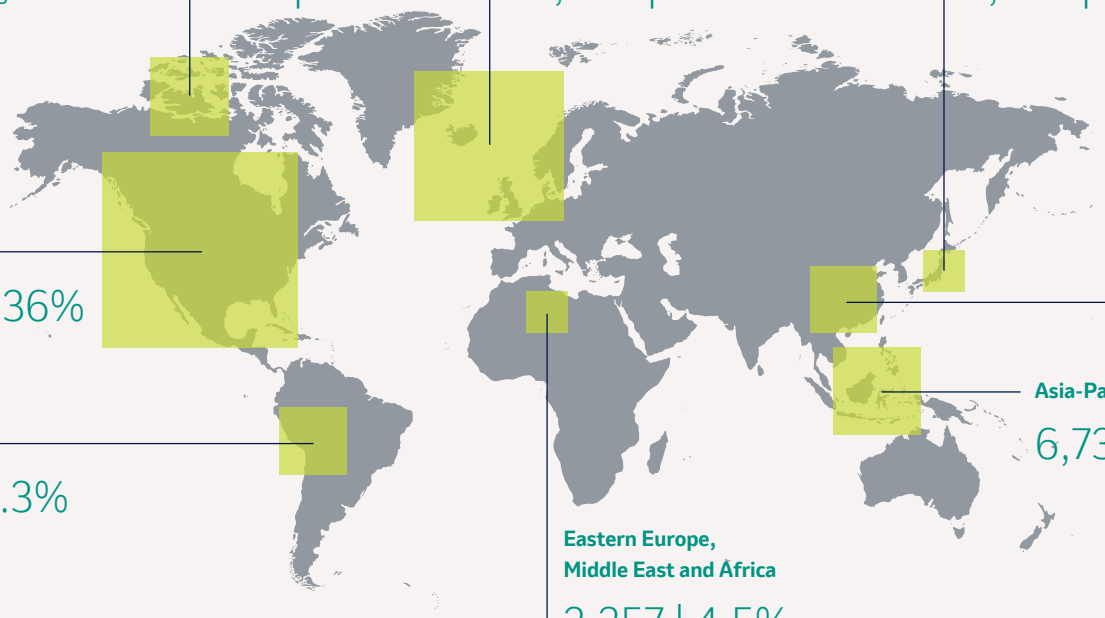
GRI 102-7	Scale of the organization (Core)
GRI 102-8	Information on employees and other workers (Core)
SASB 000.A	Patients treated (#)

As of December 31, 2020, the company had approximately 74,000 employees worldwide, with approximately 27,000 employed in the U.S., including Puerto Rico, and approximately 26,000 third-party contractors globally. Approximately 73,000 of the company's employees are full-time employees. Women and individuals with ethnically diverse backgrounds comprised approximately 50 percent and 31 percent of the workforce in the U.S., respectively. As of July 1, 2021, women comprised 43 percent of the members of the Board of Directors.

For more information on our diversity, equity and inclusion figures, please see GRI 405 on page XX.

Employees by region

Number of employees | Worldwide percentage



Canada
668 | 0.9%

Europe (Western)
20,995 | 28.1%

Japan
3,266 | 4.4%

U.S.
26,826 | 36%

China
7,273 | 9.8%

Asia-Pacific
6,730 | 9.0%

Latin America
5,469 | 7.3%

Eastern Europe, Middle East and Africa
3,357 | 4.5%

GRI 102-9 Supply chain (Core)

Our company is committed to the highest ethical standards to help maximize the long-term sustainability of our business and of the communities in which we operate. We strive to conduct business with third parties which share our commitment to high ethical standards and who operate in a responsible and ethical manner. The term "third party" is broadly interpreted to include any individual or entity that provides any type of goods or services in support of our sourcing initiatives. We expect all third parties with whom we engage to comply with all applicable regulations, as well as share in our commitment to the principles outlined in our Business Partner Code of Conduct.

We manufacture, package and distribute products to more than 140 markets around the world. We have established business relationships with over 40,000 suppliers. Our networking is comprised of approximately 1,700 direct suppliers (including external manufacturing providers), 1,800 capital expenditure suppliers, 32,000 indirect suppliers and 4,700 research providers. Our direct suppliers provide us with goods such as packaging, components and ingredients. Capital expenditure suppliers provide goods and services such as engineering and construction. Our indirect suppliers include those that provide services such as logistics, travel and meetings, facility management and marketing. Our research providers include lab supplies and other research related services.

We understand that our influence goes beyond our own operations and that our Sustainable Sourcing program is vital to achieve our commitments.

Our approach to sustainable sourcing

We have a sourcing management process in which environmental sustainability, social responsibility and economic inclusion and supplier diversity (EI&SD) principles are integrated in each stage. Throughout the supplier life cycle, our company establishes expectations, assesses risk, supports supplier development and manages performance.

Our Global Supplier Management Group (GSMG) is responsible for driving our Sustainable Sourcing program and maintaining the associated standards and processes by which suppliers are identified, qualified and managed. Our Sustainable Sourcing program has the following key elements:

- **Integration** into our Global Sourcing & Procurement Strategy and processes
- **A cross-functional team** that oversees program development, processes and guidelines to encourage best practices, prevent violations of supply chain standards and limit risk
- **Established sustainability requirements** that are communicated to our suppliers and included in supplier selection
- **Review, tracking and communication** of supplier sustainability programs
- **Collaboration** as we educate and learn from our supply chain, peer companies and best-in-class organizations

Third-Party Risk Management team

To help manage and address potential areas of risk associated with third party business relationships, our company has an established Third-Party Risk Management program and committee chaired by the senior vice president for Global Procurement. The team establishes, implements and monitors environmentally, socially responsible and ethical sourcing practices to ensure that performance is aligned with our mission. The cross-functional team includes leaders from our business areas as well as functional areas that monitor risk, including: Compliance, Global Safety and the Environment, Information Technology Risk Management & Security, Business Development, and ESG Strategy & Engagement. Representatives from each function meet regularly to discuss, assess and manage issues on a risk-driven basis.

Supplier selection and setting expectations

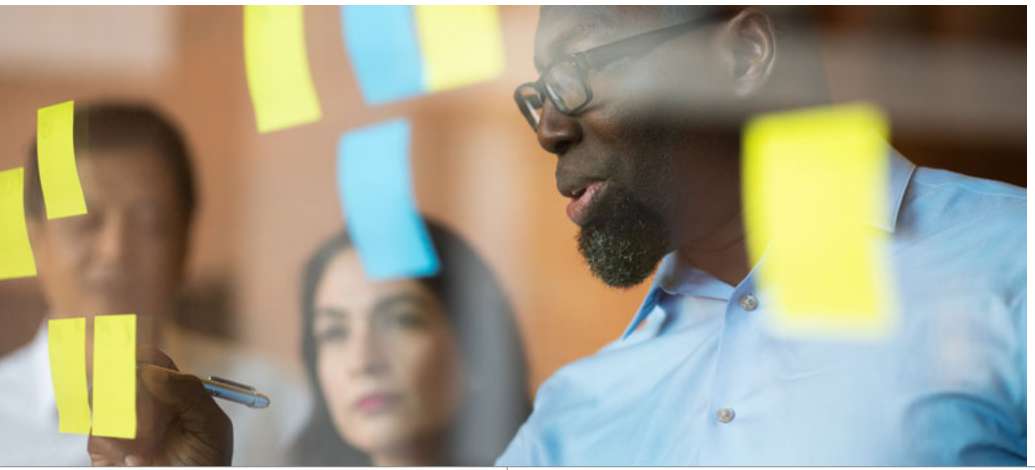
We select suppliers that share our commitment to our values and principles. We expect appropriate standards of conduct and respect for human rights from our suppliers, contractors, vendors and external partners to be consistent with our own. We use our Business Partner Code of Conduct to communicate our expectations for Human Rights, Labor & Employment, Health, Safety & Environment and Ethical Business Practices. Our Business Partner Code of Conduct, along with our company's Supplier Performance Expectations, are communicated to existing and potential third parties. They are included in requests for information, proposals and quotes, as well as in our purchase order terms and conditions. We make it available in 26 languages.

Our Code Of Conduct adheres to and references the Pharmaceutical Supply Chain Initiative (PSCI) Principles for Responsible Supply Chain Management (the Principles). PSCI is a group of almost 50 pharmaceutical and health care companies which promotes sustainable sourcing and better business conditions across the industry, and the Principles set the standard for human rights, ethics, labor, health and safety, environment and related management systems. In 2020, the Principles were updated to include a specific reference to human rights, the UN Guiding Principles on Business and Human Rights, an enhanced ethics section and new clauses on resource efficiency and sustainable sourcing.

Supplier certification and material review

In 2020, GSMG initiated a program to certify our suppliers' social and environmental sustainability program capabilities. We request select suppliers provide sustainability certifications and assurance, which are evaluated to determine if the supplier can be certified as a member of our GREEN Supplier Program. Travel and Meetings (including Fleet), Integrated Logistics and Paper-based Packaging Categories are currently included in this program which:

- Encourages supplier engagement
- Shares best practices and improves sustainability practices
- Tracks supplier sustainability goals
- Generates a list of GREEN Suppliers and proposed sustainability projects
- Monitors progress utilizing a key performance indicator (KPI) on the GSMG Scorecard



Additionally, we initiated and participated in a collaborative research project with PSCI to identify risks associated with our suppliers including prioritizing materials that are considered sensitive. PSCI has identified materials commonly used within our industry that warrant further examination.

These include:

- Rubber
- Corn
- Palm oil
- Aluminum
- Shellac
- Glass
- Sugar
- Talc
- Fish oil
- Castor seed/oil
- Soy, Cellulose
- Ethanol
- Carnaúba wax

We recognize that potential risks may also exist beyond our Tier 2 suppliers and plan to participate in efforts (in collaboration with PSCI) to ensure that the materials we use are sourced responsibly.

We are incorporating findings from the PSCI joint project into our internal risk assessment and mitigation approaches. We have also been mapping our supply chain to identify which of our suppliers operate in countries that are known to present significant risks. We use this information to help us decide the appropriate level of due diligence for our ingredients.

We also initiated the collection of supplier packaging data. Based on 2020 data received (as of March 2021), our packaging ranges from having no post-consumer recycled content or certifications to 100 percent. We plan to continue to enhance our packaging data collection for future reporting.

Supplier due diligence assessments

We have a defined risk-management process, and our supply base is measured against the process criteria. Using a risk-based approach, supplier assessments and audits are conducted based on multiple factors (e.g., risk profile, engagement and activity type, geography). The assessments and audits evaluate a supplier's ability to meet both industry and our own standards for quality, safety and ethical business practices. Results are reviewed with senior management across the company.

Examples of our due diligence include:

- Anti-bribery and corruption
- Conflict minerals
- Denied-party screening
- Ethics and compliance
- Financial solvency
- Global trade compliance
- Information security and cybersecurity
- Intellectual property
- Labor and human rights
- Privacy (data protection)
- Supply-chain security

Where assessments and audits identify deficiencies or opportunities for improvement, we monitor suppliers to ensure that our concerns are addressed in a responsible and compliant manner. As part of our oversight and monitoring, we have established mechanisms to report, track and monitor supplier plans to address nonconformance and help drive continued improvement. Additional review(s) are performed for external manufacturing suppliers and suppliers that manage personal and private information.

External manufacturers of our products

Prospective external manufacturers of active pharmaceutical ingredients and finished products are screened for environmental, health and safety (EHS) compliance in addition to quality, supply and technical competence requirements. The EHS screening includes a survey covering such topics as regulatory compliance, fatalities and major incidents.

Based on the screening results and activities undertaken by the supplier, certain external manufacturers are subject to a more detailed onsite assessment conducted by a multidisciplinary team, which may include our company's Quality, Global Safety and the Environment, Global Technical Operations and GSMG representatives.

The external manufacturers we contract with are periodically reassessed using a risk-based approach; higher-risk external manufacturers are subject to more frequent onsite assessments. We expect that observations made during the audit process will be remediated by our external manufacturers, and we monitor and track corrective actions through completion.

Protecting the privacy of personal information

Some of our suppliers, such as contract research organizations, market research agencies, information technology systems developers and other suppliers, process personal information in connection with their performance of services for our company. We require these suppliers to provide appropriate privacy protection for personal information that they handle in accordance with our privacy policies and applicable privacy laws, regulations and guidelines.

Protecting against cyberattacks and assuring business continuity

We recognize that cybersecurity events at suppliers pose an increased risk to our business continuity. In 2020, our company continued our supplier cyber resiliency risk management program to conduct assessments and review risks and remediation actions with key suppliers. We also expanded the program by introducing joint cyber-resiliency tabletop exercises and rolling out cybersecurity contract language with selected key suppliers. The program fosters mutually beneficial working relationships with our top suppliers. We continue to enhance the program to improve operational excellence and continuous monitoring capabilities.

Collaboration is key

We are a founder and active member of PSCI. The member companies share a vision of better social, health, safety and environmental outcomes in the communities where we buy. Collectively, PSCI members share knowledge and expertise across our industry to drive complex, global change more effectively with our suppliers than any one organization alone.

Our company currently holds a position on the Board, co-leads the Environment Team and is the board liaison for the Capability Committee. We are also an active member of the Human Rights and Labor team. In 2020, PSCI focused on updating the Principles and developing supplier training, tools and maturity models.

Training

We understand the importance of training and, in 2020, developed and provided numerous training events assigned to employees, industry peers and suppliers. Most of our internal classes are assigned through our centralized learning system. In addition to providing training through our internal systems, we also work with PSCI to develop and provide training to our suppliers and peers.

Some examples of our training and associated tools include:

- Procurement Onboarding
- Third-Party Risk Management
- Business Partner Code of Conduct Training (Edition 2)
- Mitigating Modern Slavery Risks in Our Supply Chain
- 10 Environmental Sustainability Guides
- 14 Responsible Sourcing Guides for Key Materials
- Responsible Sourcing of Raw Materials Training
- Sustainable Packaging
- Revised PSCI Principles

Communication to our stakeholders

We have an internal webpage maintained by GSMG that provides information on our Sustainable Sourcing programs to stakeholders. Examples of materials provided include: our program summary, supplier data, benchmarking, supplier programs, training materials and newsletters. We also have quarterly newsletters in addition to monthly updates that are provided via email.

Additional details regarding our supplier-focused ESG programs can be found in GRI 204 on page XX, GRI 308 on page XX, and GRI 414 on page XX.

Assessing the effectiveness of our program

During 2020, we reviewed the following key performance indicators (KPIs) to help us assess the effectiveness of our efforts in our business and supply chain. We use these measures to monitor our performance and identify opportunities to help improve our programs.

Supply chain KPIs	2017	2018	2019	2020
Employees trained on mitigating modern slavery risks in our supply chain[1]	1	451	4	**8**
Employees trained on updated Business Partner Code of Conduct (Edition II)[1]	195	148	190	**183**
Employees trained on Third-Party Risk Management[1,2]	N/A	N/A	N/A	**185**
Supplier Self-Assessment Questionnaires performed[3]	466	595	706	**547**
Supplier LHR audits conducted[4]	32	104	39	**47**
Supplier LHR audit observations addressed/remediated[5]	100%	100%	99%	**95%**
Supplier personnel trained in ESG[6]	N/A	N/A	N/A	**1,492**
GREEN supplier spend[7]	N/A	N/A	N/A	**$247M**

[1] Primary target: Procurement and business development staff with responsibility for supplier management
[2] Formal training was created and rolled out in late 2020; prior to 2020, informal training was provided on an as needed basis
[3] Undertaken as part of initial and ongoing supplier due diligence, managed and overseen by GSMG; Scope includes labor and human rights, environment and safety, and ethical business practices
[4] Announced on-site audits, independently performed by third-party audit firms; primary focus on direct material (Tier 1) supplier facilities located in China, India, Mexico and Indonesia
[5] Monitoring closure of past audit observations revealed by supplier LHR audits; not all CAPAs are due within the same year
[6] Formal Training created in 2020 and conducted as joint effort with PSCI; includes Sustainable Packaging, PSCI Principles, Forced Labor and Modern Slavery
[7] 2020 metric represents 2019 spend data for the 2020 list of GREEN Suppliers

GRI 102-10 Organizational changes during the reporting period (Core)

In February 2020, we announced our intention to spinoff (the Spin-Off) products from our women's health, biosimilars and established brands businesses into a new, independent, publicly traded company named Organon & Co. (Organon) through a distribution of Organon's publicly traded stock to our shareholders. We completed the spinoff on June 3, 2021. The financial and other information contained in this report relating to the year ended December 31, 2020, and earlier periods, includes the information related to the Organon businesses that were spun-off in 2021.

We also had a Healthcare Services segment that provided services and solutions focused on engagement, health analytics and clinical services to improve the value of care delivered to patients. We divested the remaining businesses in this segment in the first quarter of 2020.

For more information on the spinoff, please visit our 2020 Form 10-K, pages 1, 28, 40–42, 47–48, 57–60, 83 and 97, as well as related information on our corporate website.

For more information on the divestiture of our Healthcare Services segment, please visit our 2020 Form 10-K, pages 1, 47, 61, 83, 107, 127, 132 and 133.

GRI 102-11 Precautionary principle (Core)

We take a precautionary approach when evaluating potential human exposures and environmental impacts resulting from our manufacturing processes. Conservative assumptions are made when data is limited, and safety factors are added to address uncertainty and variability in our assessments.

This type of approach is particularly relevant to our work in toxicology, industrial hygiene, biosafety and environmental protection.

For more information on our approach to the precautionary principle, please refer to the following sections:

GRI 301 – Materials (page X)

GRI 302 – Energy (page X)

GRI 303 – Water (page X)

GRI 305 – Emissions (page X)

GRI 306 – Effluents and Waste (page X)

GRI 307 – Environmental Compliance (page X)

GRI 403 – Occupational Safety (page X)

GRI 102-12 External initiatives (Core)

Though not an exhaustive list, below are examples of third-party principles and initiatives we have endorsed. Additionally, there are multi-party collaborations mentioned throughout this report, that are mentioned in relation to specific disclosures.

Water

We have endorsed the UN CEO Water Mandate, a public commitment to adopt and implement a comprehensive approach to water management, and we have aligned our water program with its principles. CEO Water Mandate endorsers have a responsibility to make water-resource management a priority and to work with governments, UN agencies, nongovernmental organizations (NGOs), local communities and other interested parties to address global water challenges. We are working to identify partnerships that will help us advance our water stewardship priorities in the areas in which we operate. These projects also support the goals of SDG 15, which strives to "protect, restore and promote sustainable use of terrestrial ecosystems."

Human rights

Our company believes in the dignity of every human being and recognizes the international human rights principles embodied in the United Nations Global Compact and as defined in the United Nations Universal Declaration of Human Rights and its subsequent changes, the International Covenant on Economic, Social and Cultural Rights, the International Covenant on Civil and Political Rights, the Organization for Economic Cooperation and Development Guidelines for Multinational Enterprises and the core labor standards set out by the International Labor Organization.

Supply chain

Our human rights practices are informed and guided by the PSCI's Pharmaceutical Industry Principles for Responsible Supply Chain Management which set the standard for ethics, labor, health, safety and the environment for our industry.

Diversity

In 2009, we signed onto the United Nations Women's Empowerment Principles. These principles reflect seven areas of focus designed to promote gender equality in business.

Kenneth C. Frazier, our Executive Chairman and former CEO, is now the chair of the OneTen Initiative, a coalition of leading executives who are coming together to upskill, hire and advance one million Black individuals in America over the next 10 years into family-sustaining jobs with opportunities for advancement. You can learn more about this initiative in GRI 405 on page XX.

Clinical research

In accordance with our public policy position statement, all investigational studies in human subjects are conducted in a manner

consistent with laws, regulations and guidelines for the protection of human subjects, including those issued by the International Council for Harmonisation Good Clinical Practice (ICH GCP).

Animal health

We encourage proactive vaccination of animals to prevent disease and support the responsible use of antibiotics to treat and improve the health of animals. As a global animal health company, we support the Antibiotic Commitment established by the animal health industry.

Privacy

We are a member of the International Pharmaceutical Privacy Consortium (IPPC), an association of research-based pharmaceutical companies formed in 2002 that has worldwide responsibility for the protection of personal health information and other types of personal data. We have been actively involved in the IPPC since 2006, in order to engage in a constructive dialogue with European data-protection authorities and other regulators on privacy standards for biomedical research.

Other initiatives

In addition to the ESG reporting frameworks we report against (see pages XX–XX), we also support the following external initiatives and commitments (among others), the details of which can be found throughout this report:

- American Chemistry Council's (ACC) Green Chemistry Initiative
- AMR Alliance Common Antibiotic Manufacturing Framework
- Billion Dollar Roundtable (BDR)
- Compliance Program Guidance for Pharmaceutical Manufacturers
- International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) Code of Practice
- Paradigm for Parity
- PhRMA Code on Interactions with Health Care Professionals
- Science-Based Targets Initiative (SBTi)

GRI 102-13 Membership associations (Core)

Our company is a member of numerous industry and trade groups. We work with these groups because they represent the pharmaceutical industry and business community in debates led by governments and other stakeholders, and because they help the industry reach consensus on policy issues.

Our top three trade associations in 2020:

- Pharmaceutical Research and Manufacturers of America (PhRMA)
- U.S. Chamber of Commerce
- Biotechnology Industry Organization (BIO)

When our trade associations actively lobby on our core business issues, we seek to align their positions with our own. There are times, however, when we may not share the views of our peers or associations — both on issues that are central to our business and on those that, while important, are not directly material to our mission. With representatives on the boards and committees of industry groups and trade associations, we can voice questions or concerns we may have about policy or related activities. We may even recuse ourselves from related trade association or industry group activities when appropriate.

The Corporate Secretary sends an annual report to our company's Board of Directors on trade association dues greater than $25,000 that were spent in the previous year on lobbying and political activity in the U.S. The Governance Committee of the Board of Directors has ongoing oversight of the company's membership in trade associations and grassroots lobbying activities.

Below is a list of industry and trade groups of which we are a member, and our trade association dues (those greater than $25,000) that are used for lobbying purposes:

Trade Association Dues Used for Lobbying	2016	2017	2018	2019	2020
Animal Health Institute	$32,726	$39,271	$70,687	$70,687	**$56,550**
Bio New Jersey*	$1,980	$4,860	$5,100	$10,140	**$8,490**
Biotechnology Industry Organization	$238,208	$231,679	$237,468	$274,964	**$320,471**
California Life Sciences Association	$13,680	$11,300	$49,980	$49,980	**$47,760**
Council of the Americas*	$1,250	$1,250	$1,250	$1,250	**$1,500**
Chemistry Council of New Jersey	$6,000	$8,775	$8,951	—	**—**
Healthcare Institute of New Jersey	$126,004	$122,100	$114,404	$113,645	**$116,983**
Healthcare Leadership Council	$90,000	$90,000	$90,000	$90,000	**$90,000**
Life Sciences Pennsylvania*	$3,960	$4,500	$4,520	$6,360	**$4,858**
Massachusetts Biotechnology Council	$9,669	$9,884	$10,164	$10,461	**$11,055**
National Association for Biomedical Research	$20,000	$20,000	$20,000	$20,000	**$20,000**
National Association of Manufacturers	$70,845	$61,792	$56,443	$59,083	**$62,132**
New Jersey Chamber of Commerce	$4,001	$4,142	$4,245	$4,374	**$3,003**
New Jersey Civil Justice Institute	$30,000	$30,000	$30,000	$30,000	**$30,000**
Pharmaceutical Research and Manufacturers of America	$6,418,500	$11,630,454	$12,548,663	$11,743,028	**$18,730,134**
Texas Healthcare & Bioscience Institute*	$3,500	$5,500	$5,500	$5,500	**$5,500**
U.S. Chamber of Commerce	$345,000	$206,250	$237,500	$297,000	**$130,000**
U.S. Council for International Business	—	—	$3,445	$3,728	**$7,456**

*Includes associations where dues are > $25,000. Because the U.S. tax law that requires this reporting does not apply outside the U.S., trade associations that are not subject to this do not provide breakouts of lobbying expenditures from membership dues.

Through our top three trade associations (listed above), we engaged on the following policy issues in 2020:

In the U.S., the top issues at the federal level for which our company lobbied were:

- Medicare Part B
- Medicare Part D
- International Reference Pricing
- Medicaid Average Manufacturer Price (AMP) cap
- Legislative and regulatory restrictions for access to animal health products
    - » CVB Funding

In the U.S., our company lobbied at the state level to address these key issues:

- Drug price transparency and price controls
- Market-based solutions for access to innovative pharmaceutical, vaccine and biologic products
- Maintaining a strong business environment for U.S. operations
- Support for a strong immunization infrastructure
- Removal of legislative and regulatory restrictions for access to animal health products
- Support the regulatory/legislative environment for veterinary medicine and technological development

In Europe, the top issues for which the company advocacy focused on:

- Addressing the European Commission's review of incentives for biopharmaceutical products
- Fostering frameworks for sound pricing and procurement regimes in and across diverse EU member state economies
- Supporting government vaccination, hepatitis and diabetes programs
- Advancing the dialogue for sustainable models to fund future cancer care
- Improving standards for health technology assessment and health literacy
- Ensuring science-based policies for biological medicines
- Legislative and regulatory restrictions for access to animal health products
    - » EU-UK trade and cooperation agreement
    - » NVR implementation
    - » Pharmaceuticals in the Environment
    - » AMR
    - » One Health strategy
    - » New technological developments

Strategy

GRI 102-14	CEO Letter (Core)

Please see the letter from our President and CEO on page 4.

Ethics & Integrity

GRI 102-16	Values, principles, standards, and norms of behavior (Core)
GRI 102-17	Mechanisms for advice and concerns about ethics
SASB 510a.2	Code of ethics governing interactions with health care professionals

Our company's Office of Ethics is responsible for ensuring that employees are aware of and trained on the Code of Conduct and Corporate Policies addressing ethics and compliance.

Our Code of Conduct, *Our Values and Standards*, is available in 23 languages and applies to all employees worldwide. *Our Values and Standards* set clear ethical expectations and principles that allow us to be a company worthy of trust. The Code of Conduct represents the very core of our character as a company and helps us to protect the reputation we have earned. In addition to publishing a PDF version of our Code of Conduct's external website, our company offers a Code of Conduct (internal) website that allows employees to download a PDF of the Code of Conduct, search for a policy, ask a question or raise a concern through MSDethics.com. It also offers tools and resources to help employees put our values into practice with every decision and every action.

Corporate policies are reviewed every three years by business content owners and updated as needed.

We abide by strict ethical standards in our own operations, and we insist on equivalent standards from our suppliers. Our Business Partner Code of Conduct is based on our company's Code of Conduct, as well as on the PCSI's Pharmaceutical Industry Principles and the Ten Principles of the UN Global Compact.

The Office of Ethics also serves as a channel for the receipt, triaging and redress of ethics and compliance-related concerns. Depending on the concern type, the concerns will be investigated by the Office of Ethics, the Office of Global Investigations, Legal or Human Resources.

Employees are encouraged to raise their concerns to their management, Human Resources, Compliance, Legal or the Office of Ethics. The Office of Ethics maintains a global ethics program, Speak Up, and the MSDethics.com reporting tool. The reporting tool is operated by an independent third party and is available 24/7. MSDethics.com allows employees and suppliers to raise concerns or ask questions confidentially and anonymously (where permitted by law) in their preferred language via phone or internet.

In alignment with our priority to protect and enhance our company's reputation through safe, ethical and compliant behaviors, and to foster a strong culture of compliance and ethics touchpoints in markets outside of the U.S., the three Regional Ethics Officers continue to manage a network of site-based volunteer Ethics Ambassadors outside of the U.S. The Ethics Ambassadors are trained to answer employee questions about the company's reporting and investigation process and actively support the Speak Up Program.

Ethics and integrity are the bedrock of all that we do. And, the company strives to maintain a transparent work environment. Accordingly, all employees are required to report concerns that are potentially inconsistent with the company's Code of Conduct and policies. Our company maintains multiple reporting channels (i.e., management, Human Resources, Compliance, Legal, Speak Up tool at MSDethics.com) and communicates regularly to employees to ensure they understand how they can report potential misconduct. Employees are encouraged, prepared and empowered to raise concerns.

We maintain a fulsome process for escalation and investigation of potential compliance-related concerns. The process is designed to ensure that we promptly investigate all reports of behavior that could violate our company's policies, values or standards and take appropriate remedial action in response to such concerns as needed.

If we substantiate allegations of ethical misconduct, we take appropriate disciplinary actions to ensure that those who were responsible are held accountable.

Disciplinary actions can include, but are not limited to, dismissal from the company, issuance of final written warning letters or financial

penalties. In addition, we take appropriate steps to address any needed improvements in organizational and process controls.

Retaliation against employees who report such concerns is a violation of corporate policy and is not tolerated.

We also maintain a policy that will give our company the discretion to recoup incentive payments made to employees in certain instances. This policy will apply when a senior leader engages in misconduct or fails to reasonably supervise an employee who engages in misconduct that results in a material policy violation relating to the research, development, manufacturing, sales or marketing of company products where the policy violation causes significant financial or reputational harm to the company.

The Office of Ethics and the Office of Global Investigations are responsible for oversight of the global processes for managing investigations into potential ethics and compliance concerns to ensure consistent and timely resolution of potential concerns and implementation of remediation actions.

Code of ethics governing interactions with health care professionals

Continuing Medical Education (CME) and Continuing Education (CE) programs

Our CME/CE Grant Program supports independent educational programs whose purpose is to maintain, develop or enhance the knowledge, skills and/or professional performance that health care professionals rely on to provide services for patients, the public or the profession. We are committed to ensuring that our CME/CE programs are educational and not promotional. Through these programs, we seek to increase physicians' knowledge about the latest scientific data and health care topics, thereby improving patient care.

The environment in which we sponsor or support educational programs worldwide is complex, governed by a multitude of laws, regulations and medical or industry association guidelines. We are committed to honoring all applicable programs required for CME/CE in the countries in which we operate.

CME programs that we support, or sponsor are governed by an internal policy that is aligned with the appropriate standards and regulations to which the programs are held including, among other things, independence and financial disclosure.

U.S. Medical Forums

We deliver balanced medical and scientific information to health care professionals within the U.S. through our company's Medical Forums, which are conducted by external speakers. Speakers are selected on the basis of their expertise in the relevant subject matter. By attending one of our Medical Forums, health care professionals learn about therapeutic and health care industry topics. The goal of these interactions is to help attendees achieve improved medical results for their patients.

With our strict standards for conducting these Medical Forums, we comply with the PhRMA Code on Interactions with Health Care Professionals as well as with U.S. Food and Drug Administration (FDA) regulations, which ensure that any product presentation is appropriately balanced with information regarding both the product's potential benefits and its risks, and is consistent with approved product labeling.

Governance

GRI 102-18	Governance structure of the organization (Core)
GRI 102-19	Delegation of responsibility
GRI 102-20	High-level accountability for sustainability topics
GRI 102-21	Access to the board
GRI 102-22	Composition of the board and its committees
GRI 102-23	Chair of the highest governance body

The primary mission of our Board is to represent and protect the interests of our company's shareholders. The Board generally meets at least six times per year to provide strategic direction and to review our progress on a wide variety of measures.

In overseeing the affairs of the company, including our governance, the Board has established four committees, each of which is composed solely of independent directors:

- Audit
- Compensation & Management Development Committee
- Governance
- Research

All of our standing committees are governed by Board-approved charters, which are available on our corporate website. Information on our company's board committees can be found in our company's 2021 Proxy Statement (pages 18–20).

Robert M. Davis, our company's chief executive officer and president, currently serves on our Board. Our former chief executive officer, Kenneth C. Frazier, is currently the executive chairman of the Board.

Environmental, social and governance (ESG) governance

We are committed to governance policies and practices that serve the interests of the company and its shareholders. Our reporting and governance structure is an integral part of this commitment.

Board

The Board, as a whole and through its committees, has responsibility for overseeing the company's ESG matters. For example, the full Board has oversight for human capital management, and the Compensation & Management Development Committee assists the Board in that regard. This includes overseeing the company's programs, policies and practices related to its management of human capital resources, including talent management, culture, diversity and inclusion. The Governance Committee oversees public policy matters, environmental, health and safety practices and also reviews social, political and economic trends affecting our business. Additional information on the committees' responsibilities can be found in our company's 2021 Proxy Statement (pages 18-20) or in their committee charters available on our corporate website.

ESG governance structure

Public Policy and Responsibility Council (PPRC)

The PPRC is a high-level forum for strategic input and guidance on our social business investments, ESG approach and public policy issues and positions. The diverse, cross-functional membership of the PPRC provides vision, leadership and cross-divisional input and alignment on policy and responsibility strategy, issues and initiatives.

Specifically, the company's PPRC enables policy and ESG issue identification and debate; makes recommendations to the Executive Committee, as necessary; informs policy and ESG strategy; and reviews performance and reporting against defined objectives.

Overall, the PPRC promotes further integration of ESG and policy considerations into our business activities.

ESG Strategy Management Team

This team, comprising functional experts throughout our company, helps to drive our long-term ESG strategy by assessing and activating the ESG-related business actions. This includes identifying risks and opportunities and advising on long-term goals and metrics. Members of this team include senior leaders from each of our four focus areas (Access to Health, Employees, Environmental Sustainability, and Ethics & Values), as well as leaders in our Office of the Secretary, Investor Relations and Strategy, among others.

Corporate Governance	2016	2017	2018	2019	2020
Independent directors on the Board	12	12	12	11	**13**
Percent of Board members who are independent	92%	92%	92%	92%	**92%**
Separate chairman of the Board and CEO[1]	No	No	No	No	**Yes**
Lead independent director	Yes	Yes	Yes	Yes	**Yes**
Independent audit committee	Yes	Yes	Yes	Yes	**Yes**
Independent compensation and benefits committee	Yes	Yes	Yes	Yes	**Yes**
Independent governance committee	Yes	Yes	Yes	Yes	**Yes**
Women on the Board[2]	23%	23%	23%	33%	**43%**
Members of underrepresented ethnic groups on the Board	23%	23%	15%	17%	**31%**
Number of Board meetings scheduled or held[3]	8	8	6	6	**7**
Shareholder support of the advisory vote on executive compensation	94%	94%	95%	95%	**91%**

Note: All figures above are as of April 6, 2021, the date our proxy statement was released.
[1] As of July 1, 2021, the positions of Board chairman and CEO are separate.
[2] As of July 1, 2021.
[3] Meetings were held in person and/or via telephone.

ESG Strategy & Engagement

Our ESG Strategy & Engagement team (formerly the Office of Corporate Responsibility) is responsible for raising the visibility of ESG issues and activities across the company. This includes fostering connections across business units and functional areas to integrate our approach to ESG into business policies, strategies and practices, including the enterprise risk management (ERM) process. Its aim is to bring the views of external stakeholders into our decision-making processes.

The ESG team also coordinates the development, implementation and communication of our global approach and, with strategic guidance from the ESG Strategy Management Team, Public Policy and Responsibility Council (PPRC), Executive Committee and the Board Governance Committee, is responsible for publishing our annual ESG Progress Report.

Corporate Responsibility Report Working Group

The members of the Corporate Responsibility Report Working Group, a diverse selection of employees from all divisions of the company, serve as subject matter experts in their respective areas and work closely with the ESG Strategy & Engagement team to help set goals and develop metrics that support and measure our overall ESG strategy and objectives. Individual members have been chosen to be active advocates for ESG within their respective departments, and coordinate the content writing for this report with subject-matter experts in their functional areas.

Contacting the Board

The Board welcomes input from shareholders and other interested parties and has established a process to receive these communications. Shareholders and interested parties may communicate directly with the Board, the independent Lead Director, the non-management or independent Directors as a group, or other members of the Board by writing to the following address:

Board of Directors

Merck & Co., Inc.
2000 Galloping Hill Road, K1-4157
Kenilworth, NJ 07033 U.S.A.

For more information on our approach to governance, please visit GRI 102-29 to 102-32 on pages XX–XX.

GRI 102-24	Board nomination and selection processes
GRI 102-25	Board conflicts of interest
GRI 102-26	Board and executive roles

For more information on our Board of Directors, please see our 2021 Proxy Statement. For an overview of our Board nomination process, see pages 24–25.

Information on our Board conflict of interest policy can be found in our Policies of the Board, in Section 13 (pages 8–9).

For information on our Board's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies and policies, see pages 12–14 of our 2021 Proxy Statement.

GRI 102-27	Board ESG knowledge
GRI 102-29	Board identification of ESG impacts, risks, and opportunities
GRI 102-30	Board review of ESG risk management processes
GRI 102-31	Frequency of board review
GRI 102-32	Highest committee or position that formally reviews and approves the organization's ESG report

Six independent directors constitute our company's Governance Committee. Chaired by Leslie A. Brun, the company's independent lead director, the committee is responsible for advising the company's Board of Directors and management on company policies and practices that pertain to the company's responsibilities as a global corporate citizen, its special obligations as a health care company whose products and services affect health and quality of life around the world and its commitment to the highest standards of ethics and integrity in all of its dealings.

Information on the Board's role in assessing risk can be found on page 14 of our 2021 Proxy Statement.

Their role includes monitoring and evaluating the company's corporate responsibility programs and activities, as well as reviewing public policy matters. The Governance Committee also reviews the company's EHS practices and its supply chain manufacturing strategy and governance and its third-party sourcing programs.

In addition, the Governance Committee is responsible for considering and making recommendations to the full Board regarding the Board's policies and practices. The company monitors and evaluates trends in corporate governance and regularly asks for and receives input from shareholders and other stakeholders. The Governance Committee reviews these trends against our current practices and structures and considers input received from shareholders and other stakeholders as part of this review.

Information on the Governance Committee's responsibilities can be found on page 19 of our company's 2021 Proxy Statement, and in its committee charter, available on our corporate website.

In addition to the Governance Committee, other Board committees oversee issues indirectly related to corporate responsibility, such as audit and compliance (the Audit Committee), executive compensation and the company's programs, policies and practices related to its management of human capital resources, including talent and diversity (the Compensation and Benefits Committee) and research (the Research Committee).

For information on our board structure, please see GRI 102-19 and GRI 102-20 on pages XX–XX.

GRI 102-33 Process for communicating critical concerns to the board

The Board welcomes input from shareholders and other interested parties and has established a process to receive these communications. Shareholders and interested parties may communicate directly with the Board, the independent Lead Director, the non-management or independent Directors as a group or other members of the Board by writing to the following address:

Board of Directors

Merck & Co., Inc.
2000 Galloping Hill Road, K1-4157
Kenilworth, NJ 07033 U.S.A.

For information on communicating to the Board, please visit our 2021 Proxy Statement (page 29).

GRI 102-35 Remuneration policies for the board and senior executives

GRI 102-36 Process for determining remuneration

GRI 102-37 Remuneration shareholder resolutions

A full discussion of our approach to remuneration for Named Executive Officers (NEOs) can be found on pages 43–58 of our 2021 Proxy Statement.To learn more about the non-binding advisory vote to approve the compensation of our named executive officers, please see page 42 of our 2021 Proxy Statement. This proposal received 91.21 percent at our annual meeting on May 25, 2021.

For information on compensation for the Board, please visit pages 40–41 of our 2021 Proxy Statement.

GRI 102-38	CEO/employee pay ratio

The total annual compensation of our median employee in 2020 was $109,482. This figure was comprised of base salary, annual incentive, savings plan company match and change in pension value. The total annual compensation for our CEO was $22,088,429.

A reasonable estimation of the ratio of our CEO's compensation to our median employee's compensation was 202 to 1.

Under the SEC rules, companies may identify the median total annual compensation using a wide variety of methods, including reasonable assumptions and estimations. It is therefore difficult to compare this ratio to those of other companies.

For more information on our methodology for determining this ratio, please see page 62 of our 2021 Proxy Statement.

Stakeholder engagement

GRI 102-40	A list of stakeholder groups engaged by the organization (Core)
GRI 102-41	Union representation (Core)
GRI 102-42	Basis for identifying and selecting stakeholders with whom to engage (Core)
GRI 102-43	Approach to stakeholder engagement (Core)

We engage with a diverse group of stakeholders to more fully understand their needs and expectations, and to gain insights that can inform our efforts to improve access to health care and foster progress toward solutions that benefit society and support our business.

Many of these engagements with partners can be found throughout this report. The groups of stakeholders with which we regularly engage include:

Patients and caregivers

We embrace the opportunity to engage with individual patients, patient advocacy organizations and caregivers to better understand their health care journeys, expected outcomes and decision-making considerations.

For more information on our work with patient groups, please see our Patient & Caregiver Resources page on our corporate website.

Health care professionals

We are committed to providing appropriate and balanced information to physicians and other health care providers about our medicines, vaccines and ongoing research.

For more information on our work with health care professionals, please see GRI XXX-XX on page XX.

For our disclosures on payments to health care professionals, visit the Transparency Disclosures page on our corporate website.

Payers

We work with payers worldwide to inform their understanding of the relationship between the prices of our products and the true value they deliver to patients and health care systems.

For more information on our work with payers, please visit our 2020 Form 10-K, pages 7–12, as well as our Pricing and Access Position Statement.

Governments, multilateral organizations and regulators

We work with policy makers, legislators, multilateral organizations and governments worldwide to ensure that policy and regulatory environments globally, nationally and locally foster patient access to medicines and vaccines, and that they are conducive to ethical business practices, science and innovation.

There is more information on these engagements throughout this report, as well as in our 2020 Form 10-K, pages 7–12.

Shareholders

We strive to create shareholder value by identifying opportunities to meet customer needs and by managing our business responsibly to achieve superior financial results over the long term. Throughout the year, we regularly engage with our investors on both financial and ESG performance.

Local communities

We work toward developing culturally appropriate mechanisms to engage and build relationships with our local community stakeholders and NGOs. We conduct this engagement predominantly through our philanthropic efforts, which can be found on the Philanthropy page on our corporate website.

Environmental stakeholders

We work to reduce the environmental effects of our operations and products and to promote sustainable environmental practices within the company, among our partners and throughout our supply chain.

To learn more, please see GRI 301 to 308 on pages XX–XX in this report.

Employees

We strive to foster a positive and inclusive working environment for our employees by providing resources to improve their health and that of their families, opportunities to further their professional development and ways to get more involved in the communities where they live.

To learn more, please see GRI 401 to 405 on pages XX–XX of this report, as well as our Wellbeing Report available on our corporate website.

As part of our mission to maintain a satisfying and productive work environment, we routinely survey all employees to learn about their perspectives on the business and on how we are responding to the needs of our global workforce. The Voice Survey, our company's all-employee opinion survey, is our flagship employee feedback mechanism, and is conducted on a biannual basis, although it was not sent out in 2020. We will be conducting the Voice Survey in 2021, and will include the results in our next ESG report.

Suppliers and business partners

We strive to engage a diverse supplier base and to encourage responsible approaches on the part of suppliers regarding labor, employment, human rights, health and safety, ethics, diversity and protection of the environment.

To learn more, please see GRI 102-9 on page XX, GRI 308 on page XX, GRI 412 on page XX, and GRI 414 on page XX.

Trade and industry associations

We engage with stakeholders through membership in numerous organizations. Within these groups, we aim to inform relevant debates in ways that are constructive and that ultimately foster improved patient access to medicines and vaccines globally.

To learn more, please see GRI 102-13 on page XX.

Union membership	2016	2017	2018	2019	2020
Employees represented by an independent trade union or covered by a collective bargaining agreement (approximate)	29%	29%	30%	30%	**30%**

Reporting practice

GRI 102-45 Entities included in financial statements (Core)

All of our company's global operations, including those of subsidiaries, are in scope for this report unless stated otherwise. This report includes activities at all facilities, owned and leased, over which we have operational control, unless otherwise noted.

The basis for reporting on other matters specific to the operations of our business can be found in our 2020 Form 10-K, which is filed with the SEC.

There have been no significant changes from previous reporting periods in the scope, boundary or measurement methods applied in this report. Data regarding employees who are part of underrepresented ethnic groups are provided for the U.S. only.

As mentioned in GRI XXX-XX on page XX, in February 2020, we announced our intention to spinoff products from our women's health, biosimilars and established brands businesses into a new, independent, publicly traded company named Organon & Co. This spinoff was completed on June 2, 2021, but does not affect our reporting on 2020 initiatives and performance data. The financial and other data contained in this report for 2020 does not reflect the spinoff of Organon.

For more information on this transaction, please see our press release on Merck.com.

GRI 102-46	Defining report content and topic boundaries (Core)
GRI 102-47	Material aspects included (Core)

An ESG materiality assessment helps us focus on those issues that matter most to our stakeholders, our company and the world. Our assessment provides insight into future trends and potential business risks and opportunities.

Our priority ESG topics

In our recently updated assessment, the following topics emerged as the most critical for our company to address:

Page FPO - content will need to be pulled from Overview. Waiting on client for content to be approved.

Tables are FPO for now.

Access to Health	Employees	Environmental Sustainability	Ethics & Values
Access to medicine GRI 203, SASB 240a.1, SASB 240b.2, SASB 240b.3	**Employee engagement and diversity** GRI 102-8, GRI 102-43, GRI 405	**Climate change** GRI 201-2, GRI 302, GRI 305	**Business ethics** GRI 102-16, GRI 102-17, GRI 205, GRI 206, SASB 270a.1, SASB 270a.2, SASB 510a.2
Ethics in R&D GRI 102-16, GRI 102-17, GRI 203, GRI 416, SASB 210a.1, SASB 210a.2	**Employee health and safety** GRI 403		**Data security and privacy** GRI 418
Product quality and safety GRI 102-9, GRI 416, GRI 417, SASB 210a.1, SASB 250a.3, SASB 260a.1, SASB 260a.2			**Governance structures and mechanisms** GRI 102-14, GRI 102-18, GRI 102-20, GRI 102-22, GRI 102-23, GRI 102-24, GRI 102-28, GRI 102-29, GRI 102-30, GRI 102-31, GRI 102-33, GRI 102-44, GRI 403-2, GRI 405-1, GRI 413-1, GRI 418-1
Public health risks GRI 102-14, GRI 403			

FPO

Our approach

To conduct the assessment we partnered with Datamaran, a materiality and ESG risk-management firm that uses a comprehensive and data-driven process for evaluating the relevance of ESG issues and trends to our business and our stakeholders. We leveraged Datamaran's business intelligence tool, which applies SASB Accounting Metrics and is GRI-certified software, to evaluate the external landscape. The following 32 topics, specific to the pharmaceutical sector, were found to be of the highest importance to our external stakeholders.

- Access to health care and medicine
- Air quality
- Business ethics
- Business model resilience
- Climate change risks
- Community relations
- Competitive behavior
- Critical incident risk management
- Customer welfare
- Data security and customer privacy
- Ecological impacts
- Employee engagement and diversity
- Employee health and safety
- Energy management
- Ethics in R&D
- GHG emissions
- Governance
- Human rights
- Inclusion and affordability
- Innovation and technology
- Labor practices
- Regulation
- Product design and lifecycle
- Product quality and safety
- Public health risks
- Responsible and smart transportation
- Selling practices and product labeling
- Supply chain management
- Transparency
- Waste and hazardous materials management
- Water and wastewater management
- Workforce management

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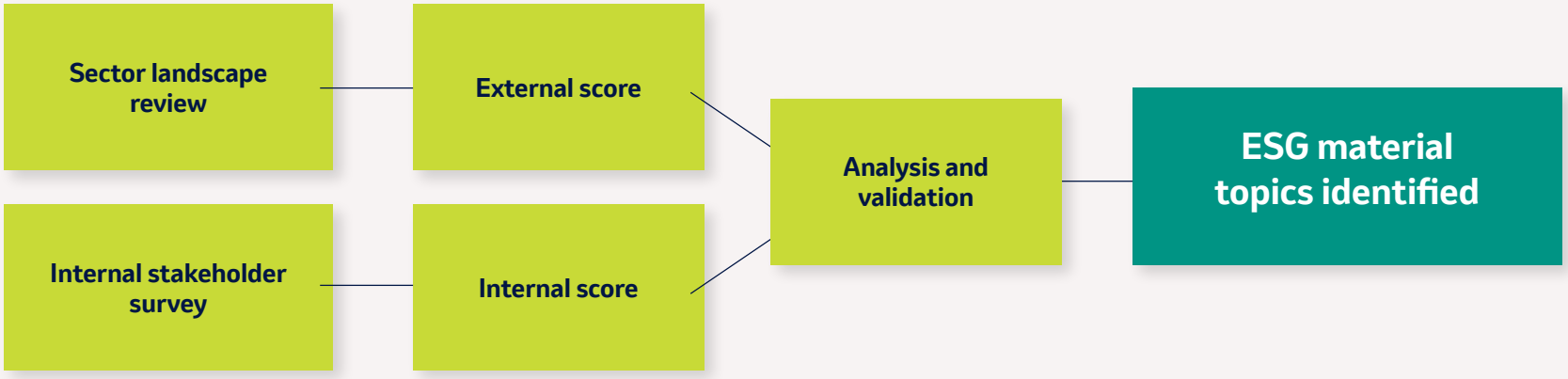
The external sources drawn from included:

- Corporate reports (annual and ESG)
- Global regulations and initiatives
- Social media platforms
- Online news sources

To supplement the data-driven analysis, we also engaged with internal stakeholders through an online survey, and interviews with external stakeholders, to validate and prioritize the issues that have the greatest impact to our business and our stakeholders.



We have included the management approach disclosures for our top 10 priority topics in this report, as well as these disclosures for many of the 32 material topics above that are specific to our industry.

We have already used this assessment to identify a new set of ESG goals (found on page XX), and its findings will help to set the direction of our work in the years ahead.

GRI 102-48	Restatements (Core)
GRI 102-49	Reporting changes (Core)

Any restatements of information are included in the footnotes beneath the specific performance data tables.

The spinoff of Organon & Co. was completed on June 2, 2021, and does not impact the content of this report. All entities that were part of Merck & Co., Inc. on December 31, 2020, and are included in our financial statements, are represented in this report.

GRI 102-50	Reporting period (Core)
GRI 102-51	Date of most recent report (Core)
GRI 102-52	Reporting cycle (Core)
GRI 102-53	Report contact (Core)

Except as otherwise noted, we report on our ESG initiatives and progress annually. These disclosures cover the prior calendar year, from January 1 to December 31, 2020. To ensure that readers have the most up-to-date information, some of the narrative in the report is about decisions and initiatives that took place in the first half of 2021. Our last report was published in October 2020.

We welcome your feedback on this ESG Progress Report, as well as any other comments or questions you may have. You may contact us at the address below or email us at corporate_responsibility@msd.com.

ESG Strategy & Engagement
2000 Galloping Hill Road, K1-3181
Kenilworth, N.J. 07033 USA
908-740-4000

GRI 102-54	Claims of reporting in accordance with the GRI Standards (Core)
GRI 102-55	GRI content index (Core)
GRI 102-54	Claims of reporting in accordance with the GRI Standards (Core)
GRI 102-55	GRI content index (Core)

This report has been prepared in accordance with the GRI Standards at the Core option. An index for all of our GRI disclosures, as well as those for the other frameworks we report on, can be found on pages XX–XX.

GRI 102-56	External assurance (Core)

ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories, and provided limited assurance for the data that we submit to CDP and for inclusion in this report.

To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of merck.com.

We did not obtain external verification for this ESG Progress Report in its entirety.

Economic

See GRI index on page XX.

Economic performance

GRI 201-1 Direct economic value generated and distributed

We believe that addressing the environmental, social and governance aspects of our business is critical to our company's success, and can provide us with new opportunities to create shared value and to demonstrate our purpose to stakeholders. At the most basic level, our principal economic contribution to society is made through the discovery, development, manufacturing and marketing of our products, which directly improve and maintain the health of individuals and communities around the world, helping them to lead more productive lives.

For more information on our overall tax strategy, please see GRI 207 on page XX.

For additional information about our business and economic performance, please see our Form 10-K for the year ended December 31, 2020, on our corporate website.

Impact investing

Impact investing is one of our innovative approaches to advancing sustainable global health solutions in line with our company's overall objectives. Through impact investing, we are able to deploy financial resources in ways that may generate not only improved access to health care for underserved populations, but also financial returns and commercial opportunities—all while growing a sustainable global health ecosystem and attracting additional capital and partners.

Impact investing is led by our Office of Social Business Innovation with guidance from the Impact Investing Committee. Established in 2019, the Impact Investing Committee is a cross-functional team of senior company leaders that reviews and approves new investments in line with established policies and guidelines and monitors the financial and social returns of the impact portfolio. We are also members of the Global Impact Investing Network (GIIN), through which we can contribute to and benefit from the growing body of expertise in the impact investing ecosystem.

For more information, please visit our Impact Investing page on Merck.com.

Financial information	2016	2017	2018	2019	2020
Sales	$39.8B	$40.1B	$42.3B	$46.8B	**$48.0B**
Research and development expenses[1]	$10.3B	$10.3B	$9.8B	$9.9B	**$13.6**
Number of employees (approximate)	68,000	69,000	69,000	71,000	**74,000**
Number of stockholders of record[2]	128,600	121,125	115,320	109,500	**104,900**
Annual cash dividend declared per share	$1.85	$1.89	$1.99	$2.26	**$2.48**
Global tax expense as reported on income statement	$0.72B	$4.1B	$2.5B	$1.7B	**$1.7B**

Note: Financial information is in accordance with Generally Accepted Accounting Principles in the U.S. (GAAP).
[1] Includes restructuring costs, acquisition-related charges and upfront payments related to collaborations and licensing arrangements.
[2] Approximate number as of January 31 of the year immediately following the reported year.

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GRI 201-2 Financial implications and other risks and opportunities due to climate change

We believe that climate change could present risks to our business. Some of the potential impacts of climate change to our business include increased operating costs due to additional regulatory requirements, physical risks to the company's facilities, water limitations and disruptions to our supply chain. These potential risks are integrated into the company's business planning including investment in reducing energy, water use and greenhouse gas emissions.

We have made it a priority to reduce our demand for energy and have established internal policies and practices focused on reducing energy use at our sites and minimizing greenhouse gas (GHG) generation throughout the company. By taking these steps, we are not only minimizing GHG emissions but also reducing operating costs and mitigating the business impacts expected to be associated with future climate change requirements.

In 2020, the company's Energy Capital fund became the Sustainability Capital Fund, expanding the scope of the funds to water and waste projects. It is used exclusively for sustainability projects at company sites around the world that bring long-term value to the company and focus on carbon footprint, water use and solid waste reduction. The fund allocates up to $12 million per year which allows us to adopt low carbon technology, better position the company to respond to climate change and supports a more circular economy.[1]

Since 2015, our sites have completed more than 95 projects through the Sustainability Capital Fund. This has saved over $6 million per year, averaging a payback of about three and a half years and avoiding the production of 50,000 metric tons of carbon per year.

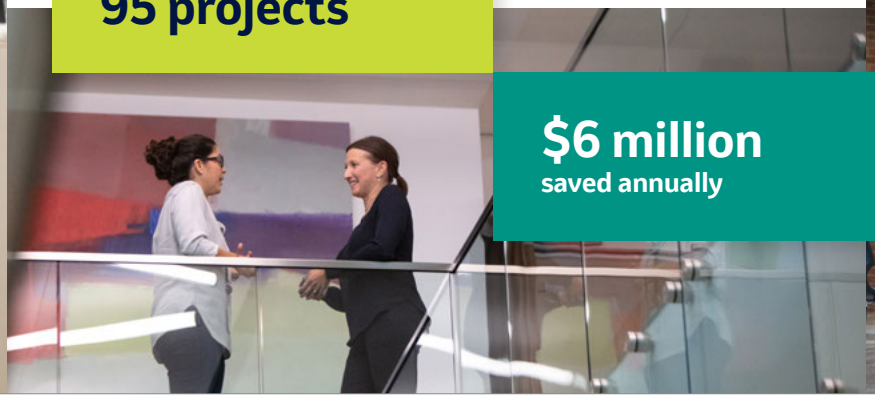
In 2020, we allocated approximately $16.4 million to energy projects. The completed projects will result in $3.4 million in annual savings and a reduction of more than 10,000 metric tons of carbon dioxide from our facilities. For 2021, we have over 45 projects in progress that, when completed, will reduce carbon dioxide emissions from our facilities by over 13,000 metric tons.

For more information, please see GRI-305 on page XX and the resources page on merck.com for a link to our response to the CDP Climate Change questionnaire.

[1] As defined by the Ellen MacArthur Foundation, "a circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems".

Sustainability Capital Fund projects

95 projects



$6 million
saved annually

GRI 201-3	Benefit plan coverage

Our compensation and benefits programs are rooted in maintaining our competitive position in the market by providing a comprehensive and valuable package of rewards to attract and retain a talented and diverse workforce while building a robust and supportive culture.

Our compensation programs, which include competitive base pay, short-term incentives and long-term incentives, target different aspects of individual and company performance and are monitored to ensure that they are competitive with those of other companies—and appropriate for the markets in which we compete for talent.

Through our global recognition program, we empower employees to recognize others for their good work, creating a culture of acknowledgement and engagement, employees have contributed nearly two million thank-you messages for everyday contributions as well as points and cash rewards for significant achievements. Since its inception in 2017, employees have contributed nearly two million recognition moments.

Our health and wellbeing, retirement and insurance programs draw from best practices to ensure quality, competitive value, protection from significant financial hardship and access to tools and resources to support employees and their family members in all life stages.

In the United States, the percentage of salary contributed by employees or employer into our U.S. Savings Plan is approximately 8.59 percent. Approximately 97.29 percent of U.S.-based employees participate in this retirement plan, and 100 percent of U.S.-based employees participate in the pension plan.

For more information, please see GRI 401-2 on pages XX–XX.

Indirect economic impacts

GRI 203	Management approach
SASB 240a.1	Access to health care for priority diseases and in priority countries
SASB 240a.2	Products on WHO's List of Prequalified Medicinal Products
SASB 240b.2	Percentage change in: (1) average list price and (2) average net price across U.S. product portfolio compared to previous year
SASB 240b.3	Percentage change in: 1) list price and 2) net price of product with largest increase compared to previous year

For more than a century, we have been inventing medicines and vaccines for many of the world's most challenging diseases.

We are committed to addressing unmet medical needs through innovative research and development (R&D). R&D expenses in 2020 reflected higher clinical development spending and increased investment in discovery research and early drug development.

Our success is largely dependent on our continued ability to attract and retain highly qualified scientific, technical and management personnel, as well as personnel with expertise in clinical research and development, governmental regulation and commercialization.

We have strategically located discovery centers in regions with active biomedical research communities in California and Massachusetts; as well as principal sites outside of the U.S., including the United Kingdom, Switzerland and China. These centers allow us to recruit talented local scientists and facilitate collaboration with local academic institutions and companies. These discovery sites complement and connect with our strong research and development capabilities and expertise based at our New Jersey and Pennsylvania sites.

Access to health goals

Goal:
100 percent of logistics partners with a security risk assessment completed annually

Progress:
Achieved

Goal:
75 percent of countries[1] around the world reached annually with our products

Progress:
Exceeded target (78%)

Goal:
95 percent of orders shipped on time and in full

Progress:
Exceeded target (98.3%)

[1] As defined by the World Bank Country and Lending Groups.

While the primary responsibility for managing a health system and providing its citizens with access to health resides with government, pharmaceutical companies have a substantial role to play in working with governments to enable access to health.

As we pursue our core mission of inventing, developing and delivering medicines and vaccines, we work to support governments in their efforts to protect the right to health.

We do this in several ways, including:

- Monitoring and reporting on the safety of our products
- Providing health care workers and consumers with important information on the benefits and side effects of our products
- Safeguarding the health, safety and privacy of patients involved in our clinical trials

In addition, we are also working to improve access to new medicines and vaccines, address deep-rooted and multifaceted barriers to access, and advocate for health care capacity strengthening in ways that are aligned with our business mission and core capabilities. We often pursue this work through partnerships.

Our enterprise-wide approach to access is guided by our Access to Health Guiding Principles, and is responsive to internationally recognized standards and priorities. This reflects our approach to embedding access across our organization. Our Guiding Principles span the areas of discovery and invention, availability, affordability, and strengthening systems and addressing inequity.

Systematic evaluation to inform product access strategies

Embedded within our research and development process, we systematically evaluate our candidates to identify the potential to address significant public health burden and unmet medical needs in under-resourced health care settings. This evaluation process informs our product access strategies with the goal of making our medicines and vaccines available to as many people as possible through sustainable solutions.

To facilitate access to our products in under-resourced health care settings, we undertake a systematic evaluation at the onset of Phase 2 clinical studies to determine a candidate's potential to meet unmet medical needs for patients in low- and middle-income countries (LMICs). Our approach involves evaluating the level of disease burden that exists, the availability of alternative medications, and the appropriateness of our candidates to improve public health. Additionally, understanding where health system infrastructure and funding mechanisms are in place is an important component

of enabling safe and effective usage, which ultimately facilitates meaningful patient access. Our R&D governance committee is accountable for the process, and all recommendations are reviewed by our Public Policy and Responsibility Council (PPRC), an internal cross-divisional forum of senior leaders.

When a drug or vaccine candidate with the potential to address significant public health burden in under-resourced health care settings is identified, the access planning process includes engaging all parts of our enterprise as well as external stakeholders to identify the most optimal solution. All candidates undergo this systematic evaluation at Phase 2. For candidates with significant potential in under-resourced settings, access planning may start in the pre-clinical phase. Once a product is approved, we commit to registering the product and making it available in all countries where clinical trials have been conducted, including LMICs. Products continue to be evaluated for their potential throughout their lifecycle to account for changes in the external environment.

Sometimes the evaluation of a candidate reveals barriers to access in an under-resourced setting. In these situations, the evaluation process can inform our approach to strengthening health systems and improving health equity.

We recognize that addressing the complex and multi-faceted challenges to accessing health care in LMICs requires the collaboration of multiple stakeholders. We actively seek partnerships to achieve solutions that enable access.

Examples of access strategies our company has initiated include: the granting of voluntary licenses that can contribute to timely and affordable access; our agreement with the Bill & Melinda Gates Foundation to advance HIV research in sub-Saharan Africa through clinical trials; and partnering with external stakeholders to support health system strengthening.

Research and development	2016	2017	2018	2019	2020
Research and development expenses (in billions)[1]	$10.3	$10.3	$9.8	$9.9	**$13.6**
Employees involved in research activities	12,300	12,700	14,500	15,600	**16,750**
New products approved[2]	3	4	2	2	**1**
Products in the pipeline and under regulatory review	39	26	24	36	**39**
Top 20 global burdens of diseases addressed by our products and pipeline[3,4]	88%	88%	88%	100%	**88%**
Established significant external licenses and collaborations	57	55	64	78	**123**
Filed U.S. patent applications	195	190	127	103	**114**

[1] R&D expenses include a 2020 $2.7B charge related to the acquisition of VelosBio and a 2017 $2.4B charge related to the formation of a collaboration with AstraZeneca.
[2] Candidates in our company's research pipeline or under regulatory review as reported in the company's Form 10-K, filed on February 25, 2021. Approval of new products only. This does not include approvals for supplemental indications. When candidates attain regulatory approval, they are removed from this pipeline view.
[3] As defined by the Institute for Health Metrics and Evaluation (IHME) using GBD 2019 data; excluding road injuries, age-related hearing loss and neonatal disorders.
[4] This number is slightly lower in 2020 than in 2019 (but in line with numbers for previous years) due to changes in the top 20 GBD list.

Global burden of disease

As defined by the GBD 2010 Visualization tools developed by the Institute for Health Metrics and Evaluation (IHME), the diseases that we address rank high on the list of worldwide causes of death. Our research into vaccines and infectious diseases addresses major burdens of disease that are prevalent in all countries, and our preventive treatments could have the greatest impact in the developing world, where health care infrastructure is weak or nonexistent.

Considering our pipeline, the list of products we currently market and external collaborations, we estimate that our company is seeking to address 88 percent of the top 20 global burdens of disease as defined by the IHME, excluding road injuries, age-related hearing loss and neonatal disorders.

Compliance

Ensuring compliance with applicable laws and requirements in all business areas is critical. As such, the stated objective of the Compliance Committee Charter within our research laboratories is to ensure ongoing compliance through appropriate management structure, processes and training.

In order to manage compliance, the Compliance Committee is composed of members of the Research Leadership Team. As a result, compliance efforts encompass the entire division and go beyond simply addressing the conduct of clinical trials.

The Compliance Committee also promotes ethical science and provides guidance to our employees within the research organization on our company's standards and corporate policies, as well as necessary education related to specific requirements applicable to the research community.

Clinical research

Clinical trials can offer hope for many people and may help researchers find better treatments for others in the future. Our Global Clinical Development department is responsible for conducting clinical trials worldwide to evaluate the safety and efficacy of our products.

In accordance with our public policy position statement, all investigational studies in human subjects are conducted in a manner consistent with laws, regulations and guidelines for the protection of human subjects, including those issued by the International Council for Harmonisation Good Clinical Practice (ICH GCP). However, individual country regulations and guidelines should remain the primary determinant of specific requirements for the conduct of medical research.

We have a commitment, where appropriate, to the study of diverse patient populations, including underrepresented groups, women and children, in our clinical trials in all regions of the world. As a result, we strive to obtain information from diverse populations, ensuring a thorough evaluation of the safety and efficacy of our medicines and vaccines. These efforts allow us to seek regulatory approvals throughout the world and thereby offer our medicines globally to patients who need them.

Consistent with ICH-GCP requirements, as part of the informed consent process, clinical trial patients are made aware of the compensation and/or treatment available to them in the event of a trial-related injury. They are also informed of the person(s) to contact in the event of a trial-related injury. Our company maintains policies and procedures that address the costs of treatment of trial subjects in the event of trial-related injuries in accordance with applicable regulatory requirement(s).

Genetic research

The rapid development of new technologies that interrogate variability in human DNA and RNA, combined with powerful computing hardware and software, has made it practical to investigate genetic and genomic determinants for risk of human disease or predictors of human response to drugs.

Our company conducts genetic and genomic research within our own clinical trials and in collaboration with external organizations that have collected human genetic and genomic samples and health data.

We collect genetic and genomic samples in our clinical trials, primarily to understand how genetic and genomic variation impacts patient response to medicines. This enables us to communicate information to regulatory authorities and prescribers that will improve the use of our medicines, and understand how genetics contribute to the underlying disease, which has the potential to identify new drug targets.

We obtain subject consent for use of genetic and genomic samples in accordance with ethical principles of human-subjects research, which include respect for persons/autonomy, beneficence and justice, consistent with the Declaration of Helsinki, U.S. FDA requirements, ICH E6 Good Clinical Practices guidelines, and the 1997 UNESCO Declaration on the Human Genome and Human Rights. When collaborating with external organizations, we ensure that consent has been obtained by individuals who have contributed DNA or RNA and/or health-related data to the organization via these same standards.

Regenerative medicine

Together with the scientific community, we believe that research using stem cells has the potential to help identify medicines, therapies and vaccines to treat, cure or prevent diseases.

Many of the most advanced scientific technologies in regenerative medicine involve animal or human embryonic stem cells.

For more than a decade, we have been applying advances made in stem-cell technologies to support our research and development. The capacity of stem cells to differentiate into specific cell types underscores their versatility and utility, from early target validation and identification, to screening and testing of potential new therapeutics, disease-modeling and pre-clinical proof of concept.

We conduct research using stem cells in full accordance with all applicable laws and regulations, and our own internal research policies. Our research policy involving stem cells adheres to the U.S. National Academy of Sciences guidelines as well as those of the International Society for Stem Cell Research.

Our company's Regenerative Medicine Oversight Committee, which comprises both internal and external experts, oversees company-sponsored research involving stem cells, including highly targeted research using human embryonic stem cells and induced pluripotent stem cells. The committee is responsible for ensuring that all projects involving stem cells adhere to our policies.

For more information on our company's R&D, please visit the Research & Products page on our corporate website.

Maintaining a global supply network

Through our manufacturing and supply division, we strive to maintain an uninterrupted, unconstrained, highest-quality global supply network. Our supply chain is designed to ensure we operate a lean and efficient network that produces our medicines and vaccines to the highest quality, safety and environmental standards, in full compliance with regulations and Good Manufacturing Practices (cGMPs) based on U.S. and international requirements and industry best practices. Through digitally enabled "end-to-end supply planning," we are digitizing our shop floors and conducting efficient and balanced planning decisions to maximize business results and deliver medicines and vaccines to customers, which include hospitals, retail outlets and patients, when and where they need them.

With both an environmental and socially conscious mindset, our facilities, along with our external contractors, suppliers and partners, make up an integrated, interdependent global manufacturing network.

Solving affordability challenges through dedicated sustainable access solutions

We expand access to our products through dedicated, market-based sustainable access solutions that expand the reach to at-need populations and patients—including those in LMICs—taking into consideration public health need, economic conditions and health care infrastructure.

We aspire to enable solutions and shape the ecosystem that delivers sustainable access to innovative medicines for patients. We collaborate with different stakeholders, including private, governmental, multi-lateral and non-profit organizations, in the ecosystem to design and deliver solutions that address the access challenges at the payer, provider and patient levels.

Our approach is predicated on the belief that broadening access requires sustained effort and is best achieved through solving the underlying challenges in the health care system that constrain access from care delivery to capacity and financing. We also believe that we exist within a wider eco-system, comprising multiple stakeholders each playing a unique and varied role. Therefore, key to our approach is a focus on solutions and collaboration.

We have focused on making this approach systematic. We have established a framework which is available to all our markets for assessing, designing and delivering practical solutions that solve access and affordability challenges. We have established a dedicated internal unit to systematically accelerate innovation and capture learnings across emerging markets. Through this approach we have been able to accelerate the development of innovative access solutions across the globe.

We also recognize that the policy environment is critical to solving access and affordability challenges. Therefore, we collaborate with governments, industry associations, trade and economic forums, think tanks and academia to advocate for evidence-based policy solutions. For example, we are actively involved in the APEC Health Coalition that shares best practices and brings industry, governments and academia together to diagnose and solve pressing affordability challenges. Similarly, we are increasing our engagement in value-based health care discussions to solve access challenges more holistically across the health care system. This engagement includes representation on the Global Innovation Hub Expert Review Committee of the World Economic Forum's Global Coalition on Value in Healthcare.

Our current portfolio of projects focused on dedicated sustainable access solutions spans across 40 countries. These projects are in various stages of development, from diagnosing the access challenges to delivering solutions in the market.

Our market teams based in LMICs address affordability through multiple initiatives, in pursuit of innovative solutions that enable broadening of access to medicines in these countries. For example, in LMICs, one of the recurring access challenges is the potentially high out-of-pocket costs for critical illness treatments. Recognizing this issue, we collaborated with reinsurers and insurance companies in South Africa and Indonesia to enable them to develop affordable health insurance products for the population, covering innovative cancer therapies. This provides much needed optionality for the population and drives greater health care inclusion. As the reach of this insurance product further expands, we expect to solve one major

access hurdle and widen access to innovative cancer therapies for patients in a commercially sustainable way. The approach reinforces our commitment to being part of a wider ecosystem, collaborating with others with complementary capability to tackle these challenges.

Addressing barriers to health

Through partnerships, investment and innovation, we apply our expertise and invest our human and financial resources to address systemic barriers to access to health where we believe our company can make the strongest contributions to health systems, communities and our patients around the world. We provide this support in several ways, including through philanthropic social investments, key initiatives, and impact investing. To be most effective, where appropriate, we align our investments with country-led priorities and partner with governmental, multi-lateral and non-profit organizations.

Our investments are guided and approved by internal and external expert advisory bodies, including an internal advisory board for our company's Foundation, an internal Impact Investing Council, and external expert advisory committees for the MECTIZAN Donation Program and Merck for Mothers.

We are committed to measuring the impact of our efforts on improving access and therefore provide support to evaluate the impact of many of our investments. In 2020, 10 percent of our investment in partnerships and programs to strengthen health care capacity and address barriers to access supported by our company's Foundation was allocated to impact evaluation.

Key accomplishments and milestones

The total number of doses of our vaccines that have been distributed has increased significantly since 2010 and our global reach has also increased dramatically: in 2020 approximately 74 percent of our vaccines were distributed outside the U.S., up from 28 percent in 2010.

More than 70 million doses of two of our vaccines—GARDASIL® [Human Papillomavirus Quadrivalent (Types 6, 11, 16, and 18) Vaccine, Recombinant] and ROTATEQ® (Rotavirus Vaccine, Live, Oral, Pentavalent)—have been distributed in Gavi-eligible countries through 2019. This represents important progress toward ensuring that these vaccines reach people in low-income settings with a high burden of disease.

We made progress in our efforts to help address Ebola virus disease. In December 2019, ERVEBO® (Ebola Zaire Vaccine, Live), our vaccine to help prevent this disease, was approved by the U.S. FDA and also approved in the Democratic Republic of Congo. As of April 2021 the vaccine has been approved in nine African countries. These approvals mark a historic moment for global public health and represent an unprecedented effort by a diverse set of partners from around the world.

On January 13, 2021, our company confirmed an agreement with UNICEF to establish the world's first global Ebola vaccine stockpile with ERVEBO® (Ebola Zaire Vaccine, Live). This agreement represents another landmark milestone in the fight against Ebola and is the result of breakthrough innovation and collaboration across Africa and the world. The global stockpile will offer a critical, rapid-response tool to help combat future outbreaks of this highly contagious, hemorrhagic illness that is endemic in parts of Central and West Africa. The stockpile inventory will be built over time and maintained by Merck.

While licensed supply is starting to be manufactured and built, investigational vaccine continues to be leveraged to support international outbreak response efforts, in close collaboration with the WHO. In the past three years, we have donated more than 300,000 doses of the investigational V920 to response efforts.

Access pricing

Our company works with governments, international health and development organizations, donor groups, NGOs and others to support countries' population health aims and help improve sustainable vaccination programs.

We use tiered pricing for vaccines as an equitable way to achieve dual objectives: to expand access for people who can benefit from vaccination, and to ensure sufficient return on investment over time to support the complex and costly research, development, and manufacturing capacity necessary to create and supply new vaccines and address post licensure regulatory requirements.

We consider a variety of factors in arriving at a price in a given country, including the local burden of disease, the health economic value of the vaccine, the country's ability to support vaccine delivery and achieve population health coverage, its level of economic development, its fiscal capacity for investments in health and actual health spending, as well as its mechanism and policies for procuring vaccines. In addition, we work with governments to address affordability challenges

and increase system efficiencies to support the sustainability of immunization programs.

We also consider inequities in access within a country. Where regulations and infrastructure allow, reduced pricing has been offered to support government or donor-funded coverage of lower-economic-tier segments.

Our commitment to helping protect global health by improving the affordability, availability, accessibility and use of our vaccines around the world is fundamental to our business and overall mission. We offer GARDASIL at an access price that is significantly less than the value-based price in other countries. The access price is exclusive to the public sectors of the countries eligible for support from Gavi, the Vaccine Alliance.

In 2015, we extended our current Gavi prices for GARDASIL through 2025 to Gavi-graduated countries with a per-capita gross national income (GNI) not exceeding $3,200. This action greatly assists Gavi-transitioned countries by facilitating access to these vaccines in those countries, while also making sure they remain affordable and sustainable in the long term. In the short period of time since we made our price commitment to countries transitioning out of Gavi support, numerous countries have taken advantage of the offer to introduce or continue existing national HPV vaccination programs.

We also remain actively engaged with Gavi on policy efforts to improve access to vaccines in Gavi-transitioned countries. We believe that our pricing approach contributes to broader access to our vaccines while taking into account our need to continue investing in vaccine research, development and production.

U.S. product pricing

We have a long history of making our medicines and vaccines accessible and affordable through responsible pricing practices and industry-leading patient access programs. In 2017, we began disclosing information about the price of our medicines in the United States.

We are working to bring our medicines and vaccines to more people around the world in ways that are as accessible and affordable as possible for the patients who need them.

While each individual situation varies based on factual circumstances and market dynamics, generally, we consider:

- Value provided to patients
- Value provided to health care systems
- Unmet need
- Access
- R&D sustainability
- Competition

In our fifth consecutive report, our 2020 U.S. Pricing Transparency Report shows an average annual net price decrease of our products of 0.9 percent in 2020.

The report also shows that our annual average list price increases across our portfolio have gone down each year for the past six years. For example, in 2020, the average annual list price across our portfolio increased by 3.1 percent — the lowest increase since 2010 — as compared with a 4.3 percent increase in 2019. In 2020, our gross U.S. sales were reduced by 45.5 percent as a result of rebates, discounts and returns.

Medicine Assistance Tool

As a demonstration of our commitment to helping low-income, uninsured patients gain access to our medicines and adult vaccines, we also participate in Pharmaceutical Research and Manufacturers of America's Medicine Assistance Tool (MAT). MAT is a search engine designed to help patients, caregivers and health care providers learn more about access resources available through the various biopharmaceutical industry programs.

MAT helps eligible patients get free or nearly free brand name medicines through a single website that provides information for and access to public and private patient assistance programs, including programs offered by biopharmaceutical companies. To date, this tool has helped millions of Americans get free or reduced-cost prescription medicines.

U.S. product portfolio pricing[1,2]	2016	2017	2018	2019	2020
List price change (wholesale acquisition cost) vs prior year[3]	9.6%	6.6%	5.5%	4.3%	**3.1%**
Net price change vs prior year[4]	5.5%	(1.9%)	2.99%	1.8%	**(0.9%)**
Average discount[5]	40.9%	45.1%	44.3%	43.7%	**45.5%**

Note: The amount of rebates, discounts and returns is estimated by the company and methodologies used may differ from methodologies used by other companies. This data is not audited and should be read in conjunction with the company's filings with the Securities and Exchange Commission.

[1] U.S. Product Portfolio includes human health pharmaceutical and vaccine products marketed by the company, excluding partnered products. The product sales utilized in the analysis represent ~97 percent of the total US Product Portfolio in 2010 and approached 99.5 percent of coverage in 2020.

[2] Annual percent change vs. prior year was calculated at a product level and weighted across the company's U.S. Product Portfolio.

[3] Represents the year-over-year change in the average list price or wholesale acquisition cost (WAC).

[4] Represents the year-over-year change in average net price, which is WAC less rebates, discounts and returns.

[5] Weighted average annual discount is calculated by dividing annual rebates, discounts and returns by annual gross sales.

For more information, you may also see our Pricing and Access Position Statement on our corporate website.

Patient assistance programs summary	2016	2017	2018	2019	2020
Patients utilizing our U.S. Patient Assistance Programs[1]	306,000	244,000	233,000	239,000	**189,500**
30-day prescriptions filled	1.7M	2.1M	2.1M	2.2M	**1.6M**

[1] Totals represent 2016–2020 volumes of our U.S. Patient Assistance Program. Volumes vary across years based on changes in covered product offerings and changes across the health care landscape. Volumes in 2020 reflect a decline as a result of the coronavirus pandemic with fewer patients visiting their health care providers for care and prescriptions.

Affordability	2019	2020
Number of countries where dedicated affordability solutions have been initiated*	40	**40**
People reached globally through product donation and patient assistance programs and partnerships[1,2] (estimate)*	404M	**268M**
Number of patents filed in low-income countries, as defined by The World Bank in its country and lending groups classifications (annual)*	0	**0**

* New key performance indicators (KPI) reported in 2019 to support refreshed Access to Health Guiding Principles.

[1] Estimate includes product donations through our company's Office of Social Business Innovation and patient assistance program.

[2] The significant decrease in people reached in 2019 vs 2020 is due to postponed mass drug administration programs as well as shipping delays as a result of the pandemic in 2020.

GRI 203-1	Infrastructure investments and services supported
GRI 203-2	Indirect economic impacts

Manufacturing and supply

In the last few years, countries around the world have enacted new or expanded vaccination programs. This has contributed to an unprecedented increase in global demand for vaccines.

We are committed to increasing our capacity and supply capability. Our commitment to invest in capital projects over five years has increased to $20 billion, with a significant portion dedicated to vaccines. In fact, in 2019, we supplied our highest ever quantity of vaccines globally.

We continue to invest in manufacturing and end-to-end supply improvements in both capability and capacity to help ensure a sustainable, reliable supply of quality and affordable vaccines to serve global needs.

Our manufacturing division continuously works to improve manufacturing processes and reduce operating costs by increasing efficiency, minimizing procurement spending and improving supply performance.

Maintaining product quality is paramount. To provide high-quality vaccines to people who need them, we manage our supply chain through policies and procedures designed to keep the distribution system secure.

We continue to explore potential strategic partnerships with other manufacturers to increase supply and promote greater access in local markets.

COVID-19 manufacturing agreements

In response to the COVID-19 pandemic, we have entered into multiple agreements to support efforts to expand the manufacturing capacity and supply of COVID-19 medicines and vaccines. Under our agreement with the Biomedical Advanced Research and Development Authority (BARDA), a division of the Office of the Assistant Secretary for Preparedness and Response (ASPR) within the U.S. Department of Health and Human Services (HHS), we will receive funding to adapt and make available a number of existing manufacturing facilities for the production of COVID-19 vaccines and medicines.

Under separate agreements with Janssen Pharmaceuticals, Inc., one of the Janssen Pharmaceutical Companies of Johnson & Johnson, we will support the manufacturing and supply of Johnson & Johnson's COVID-19 vaccine, using our facilities in the United States to produce drug substance, formulate and fill vials.

Registration and pre-qualification

We seek to ensure global access to our vaccines by obtaining and maintaining up-to-date product registrations around the globe. Additionally, we seek to obtain WHO pre-qualification so that our vaccines may be easily obtained and distributed to underserved populations across some of the world's poorest countries. On November 12, 2019, we obtained WHO Prequalification for our vaccine to help prevent disease caused by Ebola Zaire virus in adults.

The table below summarizes the registration and WHO prequalification status of a select list of our vaccines.

In addition to having our medicines and vaccines approved by stringent regulatory authorities, when relevant to enhancing access in low- and middle-income countries, we also work to have certain medicines and vaccines prequalified through the WHO prequalification process.

WHO prequalification can facilitate product procurement by international procurement agencies. WHO's prequalification program covers medicines for HIV, tuberculosis (TB), malaria, neglected tropical diseases, influenza, reproductive health and diarrhea, in addition to vaccines. In the absence of reliable national medicine authorities that can certify health care products meet required quality, safety and efficacy standards, stringent regulatory authority and WHO prequalification can serve as a basis for quality assurance for procurement by international agencies and national programs in lower-income countries.

	GARDASIL® [Human Papillomavirus Quadrivalent (Types 6, 11, 16 and 18) Vaccine, Recombinant]	GARDASIL® 9 (Human Papillomavirus 9-valent Vaccine, Recombinant)	ROTATEQ® (Rotavirus Vaccine, Live, Oral, Pentavalent)	M-M-R®II (Measles, Mumps & Rubella Virus Vaccine Live)	VARIVAX® (Varicella Virus Vaccine Live)	ERVEBO® (Ebola Zaire Vaccine, Live)
Product is WHO prequalified	Yes	Yes	Yes	Yes	Yes	Yes
Date of prequalification	May 20, 2009	February 9, 2018	October 7, 2008	January 6, 2009	February 9, 2018	November 12, 2019
Approximate number of countries where product is registered (as of April 2021)	132	85	126	81	7	40

Below is a list of products that have been prequalified by WHO as of April 1, 2021.

Products prequalified by WHO	International Nonproprietary Name (INN)	Date of prequalification
Family planning[1,2]		
MARVELON 28®	Ethinylestradiol + Desogestrel	September 2010
EXLUTON®	Lynestrenol	June 2010
IMPLANON NXT®	Etonogestrel	May 2013
Vaccines		
MMR-II®	Measles, Mumps, Rubella Virus Vaccine Live	January 2009
ROTATEQ®	Rotavirus Vaccine, Live, Oral, Pentavalent	October 2008
GARDASIL®	Human Papillomavirus Quadrivalent (Types 6, 11, 16, 18) Vaccine, Recombinant (including a VVM)	May 2009
GARDASIL®	Human Papillomavirus Quadrivalent (Types 6, 11, 16, 18) Vaccine, Recombinant (two-dose regimen to support its programmatic feasibility in developing countries)	October 2014
GARDASIL®	Human Papillomavirus Quadrivalent (Types 6, 11, 16, 18) Vaccine, Recombinant (compatibility for use in a controlled temperature chain to facilitate its administration in high-temperature, low-cold-chain infrastructure areas of developing countries)	May 2016
GARDASIL®9	Human Papillomavirus Quadrivalent (Types 6, 11, 16, 18) Vaccine, Recombinant (including a two-dose-regimen variation)[3]	February 2018
VARIVAX®	Varicella Virus Vaccine Live (first varicella vaccine to receive WHO prequalification)	February 2018
ERVEBO®	Ebola Zaire Vaccine, Live	November 2019
HIV/AIDS treatments		
STOCRIN®	Efavirenz (600mg tablet, Oral Solution 30mg) Efavirenz (50mg tablet, 200mg tablet)	May 2006 May 2008

[1] Source: Medicines/Finished Pharmaceutical Products | WHO - Prequalification of Medical Products (IVDs, Medicines, Vaccines and Immunization Devices, Vector Control)
[2] As of June 2, 2021, our family planning products have been spun off to Organon.
[3] Not currently available through UNICEF procurement; awaiting Vaccine Vial Monitor (VVM).

We have made efforts to address the unique needs of low-income countries where the infrastructure and personnel to deliver immunization services can be severely limited. A specific emphasis has been on making improvements to products in a way that make them compatible to the Programmatic Suitability Criteria for vaccines candidates for WHO Prequalification (PSPQ). These features include vaccine vial monitors (VVMs), the acceptability of a two-dose regimen for HPV vaccines and use in controlled-temperature-chain conditions.

In order to make our products available to the people who need them throughout the world, we registered 79 products and devices in 2020. The majority of these products were registered in low- and middle-income countries in the Asia-Pacific, Central and Eastern Europe, Middle East and Africa, and Americas regions.

For more information on our Access to Health Guiding Principles, and related key performance indicators, please visit the ESG Policies & Resources page on our corporate website.

Product registration	2016	2017	2018	2019	2020
New product and device registrations (annual)[1,2,3]	143	143	124	97	**79**
Products submitted that have achieved WHO prequalification (cumulative)[4]	11	13	13	13	**13**
Number of patent applications filed in low-income countries[5]	NR	NR	NR	0	**0**

NR: Not reported
[1] Data include new products and new indications.
[2] For information on new registrations by region, visit our Clinical Research section.
[3] Data for all years have been updated based on a tracking system upgrade that corrected miscounts in prior years.
[4] CRIXIVAN® (indinavir sulfate) was removed from our product list in 2019 and is no longer included in the total number of products that have achieved WHO prequalification.
[5] Countries classified as low-income countries in the 2019 World Bank Country and Lending Group classifications.

Access initiatives

We have made substantial contributions to strengthening health systems and access to health through long-standing key initiatives. These initiatives include Merck for Mothers, the MECTIZAN® Donation Program, and our company's Medical Outreach Program (MMOP).

Merck for Mothers

Merck for Mothers is our company's $500 million global initiative to help create a world where no woman has to die while giving life. For nearly a decade through Merck for Mothers, we have brought MSD's scientific and business expertise to help improve maternal health outcomes. Our efforts are focused on generating fresh thinking and infusing new approaches to help end the longstanding challenge of maternal mortality. We focus on strengthening health systems to sustain the delivery of high-quality maternity care services that benefit women and their communities. With our grantees and collaborators, we are improving health systems for women today and for the long term by advancing quality standards, catalyzing solutions that respond to community needs, and harnessing innovations for maternal health.

For more information, please visit the Merck for Mothers website.

The MECTIZAN® Donation Program

The MECTIZAN® Donation Program (MDP) is the longest-running disease-specific drug donation program and partnership of its kind and is widely regarded as one of the most successful public-private health collaborations in the world. MDP operationalizes the commitment our company made in 1987 to donate MECTIZAN for the treatment of onchocerciasis (also known as river blindness) to all who need it, for as long as needed. Since then, the program has expanded to include additional commitments to donate MECTIZAN for the treatment of lymphatic filariasis. Since the program's inception, our company has donated more than 4 billion MECTIZAN treatments. In addition to providing direct access for communities in need of treatment, the program has made significant impacts on health systems in some of the hardest to reach communities.

For more information on our efforts, please see the MECTIZAN story on Merck.com.

MECTIZAN Donation Program	2016	2017	2018	2019	2020
Direct financial investment in the program (in millions)[1, 2]	$3.74	$3.10	$2.20	$3.10	**$2.74**
Total treatments approved (in millions)	283	300	346	403	**417**
Treatments approved for river blindness (in millions)	64	97	111	131	**139**
Treatments approved for lymphatic filariasis (LF) in river blindness endemic countries (in millions)	141	89	140	141	**141**
Treatments approved for joint river blindness and LF programs (in millions)	78	114	83	70.7	**75**
Treatments approved for lymphatic filariasis (LF) in countries not endemic for river blindness[2]	N/A	N/A	12	60	**62**
River blindness endemic countries where elimination of LF has been validated by the World Health Organization (target: 30)	0	1	1	2	**3**
Latin American countries where the elimination of river blindness has been verified by the World Health Organization (target: 6)	3	4	4	4	**4**

[1] Direct investment includes operational support and grants.
[2] Following our company's commitment in 2017 to expand the donation of Mectizan to support the implementation of triple-therapy for the elimination of LF in certain setting, the Mectizan Donation Program expanded in 2018 to include donations for LF elimination in countries not endemic for river blindness.

Medical Outreach Program

Our company's Medical Outreach Program (MMOP) is the primary means through which we donate pharmaceuticals and vaccines for humanitarian assistance in the developing world and in support of disaster relief worldwide. The MMOP helps expand access to our products, particularly in developing countries, by donating pharmaceuticals and vaccines to a limited number of qualified, U.S.-based NGO partners. The scope and reach of the MMOP varies from year to year and is influenced by changing medical needs in developing countries, the quantity of our medicines available for donation, and the unpredictable nature of emergencies or disasters.

For more information, please visit the MMOP page on our corporate website.

Merck Medical Outreach Program (MMOP)	2016	2017	2018	2019	2020
Countries and territories reached by the MMOP	55	62	72	56	**46**
Estimated number of people reached[1, 2, 3]	109,398	376,304	349,570	457,520	**283,100**
Disaster relief (product) contributions (in millions)[4]	$13.41	$19.91	$12.76	$15.38	**$11.2**

[1] Estimated figures, which assume all product reached patients, are based on converting volume of medicines and vaccines donated. Conversion factors for this estimate were developed using a combination of QuintilesIMS SMART Data and U.S. product information found on our company's product website.
[2] Inhalation brands were analyzed differently after 2016. Prescriber Information dosing information was used to calculate total doses for one year for chronic asthma patient and assumes splitting inhalers.
[3] Decline in patients reached in 2020 primarily due to a decrease in topical corticosteroid medicine donations.
[4] We set the value of our product donations based on the U.S. wholesale acquisition cost.

Disaster relief

Our company is committed to supporting communities around the world that are affected by natural disasters. We look to local authorities and humanitarian relief agencies to first assess need and then respond in a timely, coordinated manner. We provide aid through financial and product donations to meet the immediate needs of affected communities.

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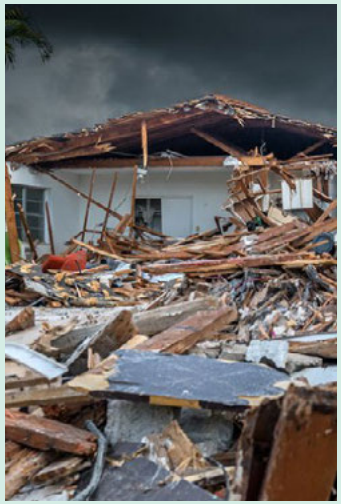

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Disaster relief	2016	2017	2018	2019	2020
Total giving value of disaster relief contributions (cash and products, in millions)[1, 2]	$13.4	$23.9	$10.2	$16.7	**$20.3**

[1] Funding provided through the Office of Social Business Innovation.
[2] We set the value of our product donations based on the U.S. wholesale acquisition cost.

Addressing barriers to health	2016	2017	2018	2019	2020
Health care workers trained through major programs and partnerships (estimate)[1]	32,000	74,000	67,000	68,000	**78,000**
Annual investment in partnerships, programs and impact investments that support health care capacity-building and address underlying barriers to access to health (in millions)[1]	$28	$40	$37	$63	**$49**
People reached through investment in partnerships, programs and impact investment that support health care capacity-building and address underlying barriers to access to health[1,2] (estimate in millions)	293	311	357	422	**278**
Percentage of investment in partnerships and programs to strengthen health care capacity and address barriers to access, that is allocated to impact evaluation[3]	NR	NR	NR	10%	**10%**
Investment in patient- and provider-education programs (in millions)	$80	$90	$115	$102	**$96**

NR: Not reported

[1] Represents investments made by our Office of Social Business Innovation.

[2] The significant decrease in people reached in 2019 vs 2020 is due to postponed mass drug administration programs as well as shipping delays as a result of the pandemic in 2020.

[3] Percentage calculated based on total investments in partnerships and programs to strengthen health care capacity and address barriers to access supported through our company's Foundation.

Philanthropic social investments

Our philanthropic social investments address underlying barriers to access to health and help advance health equity around the world. Our approach to these investments is guided by several key principles: addressing critical global health needs where we can have a meaningful impact; promoting health equity by addressing health disparities in vulnerable, underserved communities; collaborating with diverse partners to build healthier, stronger communities; and leveraging our range of resources (financial, product, and expertise) to achieve greater impact on population health outcomes.

Established in 1957, our company's Foundation is funded entirely by the company and is our chief source of financial support for qualified, eligible nonprofit organizations whose programs align with our philanthropic priorities. Our company and Foundation support innovative programs and partnerships to improve the health and wellbeing of people around the world. Through these programs, we believe that by working closely with others—governments, donors, patient groups, health care professionals, NGOs, academic institutions, multilateral agencies and the private sector—we can help strengthen health systems and improve population health outcomes.

For more information on our philanthropy programs, please visit the Philanthropy page on our corporate website. For information on philanthropic programs specific to our Animal Health business please visit our Merck Animal Health website.

We recognize that our company's success depends in large part on our relationships and interactions with local communities, including

community leaders, nonprofit organizations, local businesses, schools, elected officials and local media. The communities where we operate are home to our workforce as well as many of our suppliers. It is critical to understand the concerns and needs of our communities and address local challenges so that we can help build stronger communities and support the sustainability of our business.

We contribute to the economy of local communities directly and indirectly, through employment, training, support of local suppliers, local R&D and paying taxes. We also strive to have a positive impact on communities by protecting the environment, maintaining safe operations and respecting human rights. Our community engagement programs aim to strengthen communities where our employees live and work by helping address critical health and social needs.

Our Neighbor of Choice (NOC) grants program supports the work of local nonprofit organizations dedicated to promoting the wellbeing of community residents in areas where we have a major presence. Additionally, our company's Partnership for Giving (P4G) matching gift program doubles the donations made by employees in the U.S. and Puerto Rico to causes that are important to them. Through a dollar-for-dollar match of employee contributions, our company's Foundation supports nonprofits that promote a healthier society, advance education, foster the arts, address the welfare of animals, and preserve the environment.

Grants & Contributions

Grants and contributions	2016	2017	2018	2019	2020
Grants and contributions (total cash, in-kind and product) (in millions)[1]	$2,238	$2,722	$2,793	$3,096	**$2,890**
Cash grants and contributions (in millions)	$117	$94	$84	$82	**$104**
Product donations through U.S. Patient Assistance Program (in millions)	$798	$1,112	$1,242	$1,460	**$1,600**
Product donations for ex-U.S. programs and U.S. disaster relief (in millions)[2]	$1,320	$1,513	$1,464	$1,550	**$1,280**
Valuation of employee volunteer time (in-kind, in millions)[3,4]	$2.6	$3.2	$3.1	$4.1	**$1.0**

[1] Due to shipping delays in 2020, some product donations approved in 2020 were shipped in 2021.
[2] Includes our Medical Outreach Program (including U.S. disaster relief), the African Comprehensive HIV/AIDS Partnerships (2016 only), the MECTIZAN® Donation Program, and MSD division and subsidiary donations.
[3] Includes valuation of volunteer time for only those employees who participated in the MSD Fellowship for Global Health program and our company's Pro Bono Legal and other skills-based volunteer programs.
[4] 2020 decrease in employee volunteering valuation is due to the temporary suspension of the MSD Fellowship for Global Health Program and decreased in-person volunteering as a result of COVID-19.

Partnership for Giving (P4G)	2016	2017	2018	2019	2020
Total contribution (in millions)[1, 2]	$26	$25	$22	$15.1	**$19.3**
Number of organizations that benefited[3]	6,200	8,770	7,350	5,645	**6,468**
Number of employee participants[4]	8,200	8,302	6,503	5,083	**5,396**

[1] Total contribution includes Foundation matching funds for Dollars for Doers and P4G matching gift programs, and 2020 active-employee participant funds donated through the P4G Direct Giving program.
[2] 2020 increase is largely due to increase in employee giving and matching gifts to support COVID-19 response efforts.
[3] Includes organizations receiving funds through the P4G matching gift and Dollars for Doers programs.
[4] Includes active employee participants in the P4G matching gift program.

For more information on access and pricing, see GRI 203 Management approach on page XXX.

Procurement practices

GRI 204 Procurement practices

Global Economic Inclusion & Supplier Diversity

Global Economic Inclusion & Supplier Diversity (EI&SD) is integrated into our overall Global Diversity & Inclusion (GD&I) strategy and supports our corporate vision. The EI&SD Center of Excellence (CoE) is a member of the GD&I Business Consortium, where EI&SD is one of four target areas focusing on:

- Increasing business performance through diversity and inclusion
- Creating a competitive business advantage
- Attracting and retaining top talent
- Driving shareholder value

Economic Inclusion & Supplier Diversity is the epicenter of our company's diverse and inclusive procurement practices. We create economic opportunities for underrepresented communities by procuring products and services from minority-, women-, veteran-, lesbian-, gay-, bisexual and transgender (LGBT)-, and disability-owned enterprises.

Our goals go beyond the amount of dollars we spend with small- and diversity-owned businesses, as we focus on the growth and development of our suppliers to drive economic impact and value delivery to our company. We are committed to supporting the businesses that are the economic engine of growth around the world by making a difference in global economic inclusion.

Celebrating 35 years of impact and inclusion

Diversity is mission critical for innovation and scientific excellence as well as for better decision-making and cultural agility. This is our 35th year of pursuing goods and services from diverse suppliers. We see that as a huge milestone. It's an opportunity for us to increase our program awareness and to look more deeply at our pipeline and the suppliers we work with to see where we can expand opportunities for the communities that we serve.

2020 Virtual Engagement Center

The challenges posed by the COVID-19 pandemic haven't changed our commitment to Economic Inclusion and Supplier Diversity. Instead, they've inspired innovation. In 2020, we launched the Virtual Engagement Center with the purpose of modernizing educational offerings by curating our company's online educational content and developing webinars specific to diverse business needs. Topics included the following:

- Certification to Success
- Get to Know Your Target Client
- Show up and Follow up
- Increase Visibility in the Network
- Create and Communicate a Supplier Diversity Program
- Think Globally, Act Locally
- Differentiate Yourself
- Winning the Business

In addition, this platform allowed us to establish meaningful business connections via the Virtual Business Opportunity Fair, a remote-hosted exhibition/tradeshow for diverse suppliers. Two events were held—one in June and another in November.

Attendees of the virtual events included nearly 2,000 diverse suppliers, partners and advocacy representatives from the U.S., Puerto Rico, Canada, Brazil, Mexico, Colombia, the United Kingdom, Germany, India, China, Vietnam and South Africa. The events included webinars, speaker sessions, panel discussions, and virtual tradeshows. Throughout the course of the day, attendees engaged in over 2,700 private chats connecting suppliers, our procurement specialists, and advocacy groups.

Performance

In 2020, diverse spend represented 12 percent of our total procurement spend, exceeding our corporate goal to achieve $2 billion in spend with minority-owned, women-owned, veteran-owned, LGBT-owned and disability-owned business enterprises.

From a global perspective, we exceeded our target by 20 percent. As we continue to prepare for a successful spin-off of Organon and understanding that some areas may be impacted due to the nature of this transaction, our global initiative focus will remain the same to continue to grow and mature with a combined regional spend goal of $300 million for 2021.

$2.3 billion
spending with small and diverse suppliers

Supplier diversity	2016	2017	2018	2019	2020
Diverse-supplier spend (in millions)	$1,500	$1,962	$2,111	$2,433	**$2,270**
Small-business spend (in millions)	$753	$802	$973	$979	**$775**

Note: The acquisition of small suppliers may have impacted their small business status and therefore affected the small business spend reflected above.

Billion Dollar Roundtable

Our ongoing economic inclusion and supplier diversity efforts will enable us to continue our membership in the Billion Dollar Roundtable (BDR), an exclusive industry organization that recognizes and celebrates corporations that achieve spending of at least $1 billion with minority-, women-, veteran-, LGBT-, and disability-owned enterprises headquartered in the U.S. and globally. Our membership in the BDR allows us to share and access best practices in supply chain diversity excellence with other organizations that have also achieved this status.

As part of our 35 years of inclusion and impact, we are proud to be hosting the next Billion Dollar Roundtable Summit in 2022. The Summit will provide another opportunity to chart a course for the bold and transformative steps which are urgently needed to ensure we are optimizing positive economic impact to some of our most distressed areas, share best practices, and encourage global partners to continue to deliver on our mission.

In addition to the Billion Dollar Roundtable, we work in partnership with others, including:

- Disability:IN
- LGBT-owned Business Certification in Canada (CGLCC)
- Minority Supplier Development Council UK (MSDUK)
- Minority-owned Business Certification in Canada (CAMSC)
- National LGBT Chamber of Commerce (NGLCC)
- National Minority Supplier Development Council (NMSDC)
- National Veterans Business Development Council (NVBDC)
- United States Hispanic Chamber of Commerce (USHCC)
- United States Pan Asian American Chamber of Commerce (USPAACC)
- SASDC—South Africa Supplier Diversity Council (South Africa)
- SupplyNation
- WeConnect International
- Women Business Enterprise National Council (WBENC)

Anticorruption

GRI 205 Management approach

Our company is built on the reputation forged with our customers, partners and stakeholders. Bribery and corruption tarnishes reputation and undermines public trust. Offering or paying bribes or kickbacks is against the laws of the markets where we do business. Our company is committed to observing the laws and regulations that govern our operations and activities wherever we do business. To that end, we maintain policies and procedures that require compliance with the laws and regulations that govern the way we market and sell our medicines, vaccines and other products.

We have a well-established global ethics and compliance program that is consistent with the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) Code of Practice requirements, as well as with other applicable regional or country industry codes of conduct, including those issued by the Pharmaceutical Research and Manufacturers of America (PhRMA) and the European Federation of Pharmaceutical Industries and Associations (EFPIA).

Our company's Board of Directors and senior management, including the Chief Ethics and Compliance Officer, provide the foundational elements of leadership, accountability and structure to oversee the company's global ethics and compliance program.

The Chief Ethics and Compliance Officer reports directly to our company's CEO and provides regular updates to senior leaders, and the Audit Committee of the Board of Directors, on key indicators of ethical culture. This reporting structure supports open communications regarding important developments that relate to ethics and compliance.

Our company's robust anti-bribery/anticorruption program and corporate prevention of bribery and corruption policy give our employees the awareness and knowledge to comply with applicable laws and regulations, and to understand that the company will not tolerate any act, or even the appearance of, impropriety.

Our policy prohibits the offer, promise or giving of any payment or benefit at any time to an individual or entity for the purpose of improperly influencing decisions or actions with respect to our business. Our policy also prohibits any act that gives the appearance of offering anything of value for a business advantage. This policy applies to direct engagements (e.g., those conducted by our company) as well as to indirect engagements (e.g., those managed through a third-party intermediary or partner).

GRI 205-2 Communications and training on anticorruption

Annual ethics and policy certification

An important component of our corporate ethics and compliance program is our annual ethics and policy certification. The annual review process requires selected company employees to certify adherence to the Code of Conduct and corporate policies on preventing bribery and corruption, antitrust-law compliance, and conflict of interest and insider trading. In addition, U.S.-based (including Puerto Rico) employees must certify compliance with our corporate policy on the effects of exclusions, debarments, suspensions and health care-related criminal convictions, reporting and screening.

These employees are also expected to regulate their outside activities to avoid any conflicts of interest, and to certify, in writing, whether actual or potential conflicts of interest exist. Where potential conflicts are identified, the Office of Ethics will work with management to take actions to mitigate the potential conflict.

Ethics and compliance training is an important part of creating a strong culture. To ensure that all employees understand our ethical expectations and principles, we have a Code of Conduct annual training series that has been completed by nearly 100 percent of our employees. The 2020 topics included four specific modules: code of conduct, anti-bribery and anti-corruption, accurate books and records, and conflicts of interest.

Supplemental training on anti-bribery and anti-corruption is also provided for employees who engage with non-U.S. government officials. Additionally, our program ensures that there are cross-functional discussions in the regions and markets where we do business to ensure that our bribery and corruption policies, requirements and processes are implemented and applied appropriately.

Employees in the Human Health Division in the U.S. are also required to understand, among other things, their responsibilities under the Anti-Kickback Statute, the U.S. Prescription Drug Marketing Act, and all applicable FDA promotional regulations.

Ethics and integrity are key leadership competencies that are assessed as part of annual performance reviews and play an integral role in our decisions about employee advancement within the company.

99%
employees trained on the Code of Conduct training series

100%
employees who responded to the disclosure statement on the Conflicts of Interest forms

Anti-competitive behavior

GRI 206 Management approach

We adhere to strict ethical sales and marketing practices in all our businesses, whether pharmaceuticals, vaccines or animal health.

One of the ways we provide product information is by maintaining informative and ethical professional relationships with health care providers.

Our interactions with providers, other customers and consumers are governed by laws and regulations, and by our long-standing global Code of Conduct, *Our Values & Standards*. We enforce these external and internal standards through our ethics and compliance program.

We recognize that both our reputation for integrity and the trust that our stakeholders place in us are dependent on our ethical practices. Consequently, we want to make certain that the ways in which we market and sell our products to our customers—health care professionals, health insurers and governments—include accurate, balanced and useful information so that prescribers can make the best decisions for their patients.

Our high ethical sales and marketing standards require that scientific information is the predominant factor in prescribing decisions, reinforcing our reputation for providing high-quality products and for contributing to improvements in public health.

Our professional sales representatives and other employees inform our customers about our medicines and vaccines and their appropriate use. To respond to increasing requests for on-demand information, in certain countries we offer resources and product information to health care providers on company websites and other digital platforms.

In some countries, where permitted by law, we may directly inform patients and other consumers about diseases and available treatments that they may wish to discuss with their doctors. We believe direct-to-consumer advertising contributes to greater awareness about conditions and diseases, which can benefit public health by increasing the number of patients appropriately diagnosed and treated.

Fostering ethical practices

We believe that our marketing, sales and advertising activities make an important contribution to medicine by informing our customers of treatment options based on the most recent scientific information and findings from rigorous clinical studies.

Our sales and marketing practices are governed by external laws and regulations and industry codes of conduct, and by our own global Code of Conduct, our corporate policies and procedures, and our ethics and compliance program.

Our ethics and compliance program seeks to address and prevent inappropriate practices, and we evaluate our policies and practices as appropriate. Our practices are monitored, and compliance is enforced to ensure that our interactions with customers and consumers help inform their decisions accurately and in a balanced manner. We believe that compliance with all policies governing scientific, business and promotion-related activities, in letter and spirit, is a corporate and individual responsibility of the highest order. Through our ethical behavior, we strive to ensure that scientific information predominates in prescribing decisions.

Our guiding principles for ethical business practices involving the medical and scientific community include the following:

We provide current, accurate and balanced information about our products; we share sound scientific and educational information; and we support medical research and education

Our employees are prohibited from offering health care professionals items of personal benefit, such as tickets to sporting events, support for office social events or gift certificates for stores or golf outings. Where permitted, we may occasionally provide health care professionals with approved educational items that are not of substantial monetary value and that are intended primarily for educational purposes. Such materials may include medical textbooks, medical journals and anatomical models.

Our employees and others speaking on behalf of the company may give presentations specifically designed to provide the type of information that practicing health care professionals have indicated is needed and most useful in the treatment of their patients, in accordance with U.S. Food and Drug Administration (FDA) regulations and the regulations of other countries in which the presentations or discussions are taking place

A company representative may offer occasional modest meals to health care professionals in connection with an informational presentation; however, such meals must be in accordance with local codes and regulations

For more information, please see GRI XXX-XX on page XX.

GRI 206-1 Anti-competitive behavior

As a condition of employment, all of our sales and marketing employees are required to be certified periodically on sales and marketing practices.

In the U.S., for example, employees who do not satisfactorily meet these training requirements may not conduct specific activities on their own and must repeat the training until they meet the requirements.

All new employees receive training and testing and must be certified on relevant policies and our company's ethical operating standards. And although many of our employees who market and sell our medicines and vaccines have advanced scientific or medical degrees and backgrounds, all of our sales representatives must complete general sales and product training. Training is specific to the country where an employee is based and covers the scope of the employee's responsibilities in ensuring compliance with applicable laws and regulations.

Sales representatives are trained on anti-bribery and anticorruption laws such as the U.S. Foreign Corrupt Practices Act and the UK Bribery Act. Sales representatives in the U.S. are also required to understand, among other things, their responsibilities under the Anti-Kickback Statute, the U.S. Prescription Drug Marketing Act, and all applicable FDA promotional regulations.

After this initial training, we require periodic training aimed at recertifying employees on relevant policies and practices in accordance with local and functional requirements.

We stress that if our employees are unsure about the appropriateness of the conduct that they ask for help. There are several places employees can turn for assistance. The first option is to talk with their manager. If they do not feel comfortable with that course of action, the other resources they may contact are:

- Divisional Compliance Departments
- Office of Ethics
- Privacy Office
- Office of General Counsel
- Human Resources Department
- MSDethics.com

In addition to mandatory training on our Code of Conduct, employees receive training on other levels of business practice and compliance, according to their roles and responsibilities. We evaluate and update the content for all marketing and sales training periodically to ensure that it remains relevant and current.

Industry codes of conduct

Our sales representatives must provide truthful, non-misleading information in their interactions with the medical and scientific community. Our compliance program is consistent with applicable laws and regulations, and is aligned with the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) Code of Pharmaceutical Marketing Practices, as well as with regional and country industry codes, such as the Pharmaceutical Research and Manufacturers of America (PhRMA) Code and the Compliance Program Guidance for Pharmaceutical Manufacturers, published by the Office of the Inspector General, U.S. Department of Health and Human Services.

The pharmaceutical industry as a whole recognized that more needed to be done to address concerns raised by public officials and stakeholders in the health care community. Self-regulating industry codes of conduct such as the IFPMA, the European Federation of Pharmaceutical Industries and Associations (EFPIA) and PhRMA codes set standards for the industry's sales and marketing practices and help to ensure that companies have adequate policies and procedures in place to comply with the codes.

Among PhRMA's Code on the Interactions with Healthcare Professionals (the Code) key components is an annual requirement for company CEOs and Chief Compliance Officers to certify personally that they have policies and processes in place that foster compliance with the Code. The Code also encourages companies to periodically obtain third-party verification of their compliance policies and procedures. We complete PhRMA Code certification every year in compliance with the Code. We also periodically obtain third-party verification that our policies and procedures are adequate to support compliance with the Code.

Other requirements of the Code have previously been incorporated into our already strong ethical business practices. For example, our company follows the standards for commercial support of continuing medical education established by the Accreditation Council for Continuing Medical Education, and our ethics and compliance program requires that company representatives be periodically assessed to make sure they comply with relevant company policies and standards of conduct.

Direct-to-consumer (DTC) advertising

We believe that DTC advertising can be an important and helpful way to inform patients about diseases that may be relevant to them and about therapeutic options they may want to discuss with their physicians.

Our company has a long-standing policy of voluntarily submitting new U.S.-based DTC advertising campaigns to the FDA for its review and comment before running them. Under our DTC policies and practices, the information provided in our DTC advertising must:

- Contain appropriate product benefit and risk information
- Be appropriately balanced, consistent with FDA regulations, and use appropriate "taste and tone"
- Be approved by our company's Promotion Review Team or Digital Engagement Team, a governing body consisting of a team of reviewers (including the job owner, an attorney, a physician, a representative from the Office of Promotion and Advertising Review, and a product scientific specialist) who ensure that promotional material is clinically and scientifically accurate, compliant with applicable laws and regulations, and compliant with company policy

We try to help consumers achieve better health outcomes by delivering accurate, relevant and understandable information on disease prevention, identification and potential treatment. To remain true to this goal, we adhere to the letter and spirit of U.S. Food and Drug Administration (FDA) regulations and guidelines governing DTC promotion, meet or exceed all Pharmaceutical Research and Manufacturers of America (PhRMA) guidelines on DTC advertising, and follow a comprehensive set of internal policies and practices when engaging in DTC advertising within the U.S.

We adhere to updated 2019 PhRMA guidelines that all DTC television advertising that identifies a medicine by name should include direction as to where patients can find information about the cost of the medicine, such as a company-developed website, including the list price and average, estimated, or typical patient out-of-pocket costs, or other context about the potential cost of the medicine. In addition, we include information on our U.S. Patient Assistance Program in all new U.S.-based DTC print and television advertisements for eligible products.

We inform and educate health care professionals about our products before we advertise them to consumers. We implement comprehensive programs to educate physicians and other prescribers about a new product for an appropriate period of time before starting product-specific DTC broadcast advertising in the U.S.

These principles and our practices are reflected in the PhRMA Guiding Principles on Direct-to-Consumer Advertisements about Prescription Medicines.

For more information on our ethical marketing practices, please visit GRI XXX-XX on page XX.

Tax

GRI 207-1 Approach to tax

We recognize our role as a responsible taxpayer to pay our full share of taxes, including corporate income taxes. We also recognize that our contribution is much more than the corporate income tax we pay.

We pay a significant amount of taxes to national and local governments in the form of employment taxes, value added taxes, sales taxes, excise taxes, property taxes, and customs duties. We also collect numerous taxes paid by our employees. We pay all taxes due in full and on time in the jurisdictions in which we operate. The way we conduct business, including the economic impact from the taxes we pay, also reflects our commitment to striving to reach those in need with our medicines and vaccines and helping to build robust, durable health systems worldwide through partnership, investment and innovation.

Our Chief Financial Officer (CFO) is ultimately responsible for our overall tax position. The day-to-day management of tax is performed by the company's global corporate tax department, which is led by the Senior Vice President of Tax. Effective oversight of the tax function is maintained by at least an annual tax presentation to the Audit Committee of our Board, and regular meetings with the CFO, Senior Vice President, Tax and Treasury, and other executive leaders, to discuss emerging tax matters.

Sales and marketing	2016	2017	2018	2019	2020
Number of warning letters or untitled letters from OPDP[1] or APLB[2] in the U.S.	0	0	0	0	**0**

[1] OPDP: Since September 2011, the Division of Drug Marketing, Advertising and Communication (DDMAC) is now the Office of Prescription Drug Promotion (OPDP).
[2] APLB: Advertising and Promotional Labeling Branch (APLB) of the FDA Center for Biologics Evaluation and Research.

We comply with tax rules and regulations on a worldwide basis and only engage in tax planning that is aligned with our commercial business activities and reputation. We are committed to the arm's length standard in transfer pricing and OECD guidelines for international tax matters. We have a zero-tolerance approach to tax evasion and the facilitation of tax evasion. Where uncertainty exists, and when appropriate, we seek clarification from our external advisors and/or governmental authorities. This can take the form of tax rulings or advanced pricing agreements from governmental authorities.

We monitor proposals and changes to tax incentives and regulations in the countries in which we operate in order to assess their impact on our business, and we actively participate in industry groups interacting with government representatives to support the development of effective tax systems that encourage innovation and growth. We utilize available tax incentives and opportunities, such as Research and Development tax reliefs, in the spirit in which they were intended.

The effective income tax rates of 19.4 percent in 2020, 14.7 percent in 2019, and 28.8 percent in 2018 reflect the impacts of acquisition and divestiture-related costs and restructuring costs partially offset by the beneficial impact of foreign earnings, including product mix.

To learn more, please download our Global Tax Strategy from our corporate website.

For information on our effective tax rates for the last three years, please see GRI 201-1 on page XX.

Environmental

See GRI Index on page XX.

Materials

GRI 301 Materials

By using more efficient and innovative processing methods and technologies, we are reducing the amount of energy, water and raw materials we use to make our products, thereby minimizing the amount of waste we generate.

We go to great lengths to ensure that our products are designed, made and used in a safe, effective and environmentally sound manner. We deliver on this commitment by maintaining a highly trained and capable scientific staff and by actively pursuing manufacturing process improvements that minimize environmental impacts.

We have set environmental sustainability goals to demonstrate this commitment with concrete targets and timelines. To ensure that our knowledge stays current with that of thought leaders and experts in the industry, we also collaborate with external resources and industry groups, such as the American Chemical Society and the European Federation of Pharmaceutical Industries and Associations.

Products

We conduct extensive testing of our products to identify and understand any potential safety, health and environmental hazards. We manage and communicate information about hazardous materials to keep our employees, contractors, transporters and other partners safe.

We are actively engaged in conversations on product stewardship to understand and act on the issues on the issues specific to our industry worldwide.

We share best practices within the industry via our membership in the Conference Board Product Stewardship Council, the American Chemistry Council's (ACC) Green Chemistry Initiative ("CHEMLEG"), the European Federation of Pharmaceutical Industries and Associations (EFPIA), the International Federation of Pharmaceutical Manufacturers & Associations (IFPMA) and the ACS Green Chemistry Institute Pharmaceutical Roundtable (ACS GCIPR).

Our objective is to maintain compliance and assure supply of life-saving medicines as we look to further minimize our environmental footprint in the future.

Governance

Our efforts in this area are overseen by our Green & Sustainable Science Steering Committee and the Environmental Health and Safety (EHS) Council.

Programs and initiatives

Our chemists and engineers are trained in green-design principles and are provided with tools and resources to help them develop manufacturing processes that use safer chemicals and reduced quantities of raw materials. We use innovations like nanotechnology to make our products more effective, while ensuring that product safety always remains of utmost importance.

Complying with chemical substance and product requirements is a top priority for us. We track numerous existing and emerging chemical control regulations that require us to register specific types of chemicals with the proper authorities. To meet these requirements, our scientists complete assessments of the environmental and human health risks of the substances with which we work and submit the required regulatory notifications. Additionally, we provide details on product use and risk-based control measures in accordance with applicable regulations.

Packaging

Our product stewardship program extends to our customers and patients through the design of effective, low-impact product packaging. Our company also supports the development of science-based, cost-effective and environmentally sound programs that promote the proper disposal of unused medicines in accordance with regional requirements. For more information, see our position statement on responsible disposal of medicines, which can be found on our corporate website.

The materials we use for packaging our finished products serve a range of important purposes; the foremost purpose is to protect the purity, efficacy and physical integrity of the product. Packaging also provides the customer with information and convenience, the pharmacist or provider with accurate dispensing information at the point of purchase, and our business with marketing value. For some products, packaging also serves safety functions such as child resistance and tampering evidence.

In addition to these critical functions of packaging, there is also the consideration of the environmental impact of the materials we use. After it has served its critical function(s), packaging becomes our customer's waste, and therefore must be accounted for in our designs.

We have adopted "Design for Environment" practices that help our engineers design new product packages that are better for the environment by minimizing package sizes and using more environmentally friendly materials, where possible.

As a standard business practice, we review all of our new human health packaging designs prior to launch to understand and minimize environmental impacts as much as possible, while still providing adequate protection for our products.

To help us evaluate the differences in environmental impacts between packaging options, we use a simplified life-cycle assessment (LCA) tool that provides information on the environmental impacts generated by the materials used in our packaging.

In addition, we are working to establish foundational, environmentally-focused packaging principles for the future of our packaging design. These principles, in addition to our LCA tool, serve to guide decision making for packaging design.

We continue to monitor global trends around material use such as the New Plastics Economy, and around how we might incorporate "circular economy" concepts into the critical functions of packaging for pharmaceuticals. It is unclear how these trends will impact our industry, however, these are important signals of a changing external approach to the use and recovery of specific materials like fiber-based products, plastics such as PVC, metals and others.

Governance

Packaging design is managed by the Global Pharmaceutical Operations area of the company with oversight from the Environmental Health and Safety Council.

In 2020 we responded to the CDP forest questionnaire for timber products, specifically for paper and secondary and tertiary packaging. Also in 2020, CDP graded our disclosure with a C "awareness" rating, indicating that we have "Knowledge of impacts on, and of, forests issues". According to CDP, our company is among 50 percent of

companies that reached Awareness level in our Activity Group (Biotech and pharma) for Timber. We performed a gap assessment of our questionnaire response and developed a roadmap for improvements in this area over the next several years.

We are in the early stages of our program development and are in the process of assessing the impact of other forest risk commodities.

Solvent use

Solvents play a key role in the research and manufacturing of our products, as well as in equipment cleaning. Because of their significance to our business and the life-cycle impact they represent, we focus on designing our processes to minimize or avoid their use where practical. Where we do use solvents, we maximize efficiency and control them in our emissions, effluents and waste.

We have an active Green & Sustainable Science program (see following page) to design our new processes using fewer, less toxic, solvents and other hazardous materials, and to reuse and recycle more of the solvents we do use.

For cleaning our manufacturing equipment, we use water-based methods where they are as effective as solvents. At each of our manufacturing sites, we have engineers who are responsible for identifying and driving process-improvement projects. When it is not practical to reuse regenerated solvents in our own production processes, we either work with suppliers who recover the spent solvents for resale to other industries, or safely burn them as a source of energy. Any used solvents that leave our site as hazardous waste are managed at offsite facilities that are on our list of approved waste management sites.

Chemical management

A comprehensive and effective chemical management program is critical to the safety and protection of our employees, the communities in which we operate and the environment.

We have put procedures, systems and processes in place to manage the approval, procurement, inventory, receipt, transfer, storage, use and disposal of chemicals at all of our sites. We provide our employees and others with information about the identities and potential hazards of the chemicals in our operations and final products through proper labeling of chemicals and the creation of safety data sheets.

FPO, will restyle

Materials and packaging goal

Goal: 100% of the packaging for our new human health products will be reviewed for environmental impact and improvement.

Progress:

Achieved-100% of products launched in 2020

Green and sustainable science

Developing innovative, cost-efficient manufacturing processes with low environmental impact aligns with our company's environmental sustainability strategy. Green and sustainable science is the design of new products and processes that reduce or eliminate the use or generation of hazardous substances.

The concept applies across the life cycle of a product, including its design, manufacture, use and ultimate disposal.

There is a trend towards more regulatory restrictions and increased oversight in many places around the world. Our strategy to develop green and sustainable commercial chemical route development could help to avoid potential future issues in the supply chain.

Our company's overall objective is to be viewed as the leader in the industry for the development of innovative, efficient, green and sustainable commercial syntheses of our small molecule active pharmaceutical ingredients (API), from sustainable commodity raw materials, where feasible. We are also exploring ways to reduce the environmental impact of biologics and vaccine manufacturing.

FPO, will restyle

Green and sustainable science goal

Goal: By 2020, at least 90% of our new human health API processes will meet internal sustainability targets at launch.

Progress:

Achieved

Green and sustainable science governance

Our company's Process Research and Development department is responsible for chemistry development. The progress toward our goals is overseen by various internal bodies including the Scientific Advisory Council (SAC), the Development and Commercialization Review Committee (DCRC) and the Environmental Health and Safety (EHS) Council.

Green and sustainable science strategy

Our integrated strategy involves several stages and aims to provide innovative solutions rather than incremental improvements to historical practices. We see science and innovation as critical enablers to developing sustainable, low-cost manufacturing processes that provide both environmental and economic benefits over the life cycles of our products.

We aim to develop the most efficient and sustainable processes at product launch, with the goal of minimizing material use and waste from our commercial manufacturing. Our company's research laboratories utilize an innovative "green-by-design" development strategy to progress from an initial early clinical supply route to a fully optimized and sustainable commercial manufacturing process. We have developed aggressive Process Mass Intensity (PMI) targets for our API processes utilizing an internally developed SMART PMI tool and regularly evaluate PMI at every stage of development. We use this tool during the development of all our new API processes and achieved our stated goal that by 2020, at least 90 percent of our human health API processes will meet internal sustainability targets at the time of product launch. Nine out of ten of our new processes met the internal sustainability targets, thus achieving the 90 percent success rate threshold.

Green and sustainable science programs and initiatives

As part of our Green & Sustainable Science program, we calculate the process mass intensity (PMI) of our human health products. PMI represents the number of kilograms of raw materials (including water) used to produce one kilogram of an API or biologic. PMI indicates how efficiently we convert raw materials into final products. We use this metric internally to compare different manufacturing methods, identify process improvement opportunities and track our progress. We are also using life-cycle assessment (LCA) tools to further evaluate the environmental impacts of our processes.

American Chemistry Society (ACS) Green Chemistry Institute (GCI)

We are a founding member of the ACS Green Chemistry Institute® Pharmaceutical Roundtable, a partnership between the ACS GCI and member pharmaceutical companies. The Roundtable assists with the development of tools, such as solvent selection, reagent guides and the PMI calculator, which drive the integration of sustainability into process design. Roundtable members also work together to support and advance academic research and education on new ways to apply green and sustainable science to pharmaceutical discovery and manufacture, which have resulted in several industry publications on more sustainable processes and technologies. More recently, the ACS GCI member companies have developed tools and guidelines for sustainable production practices relevant to bioprocessing.

In 2017, 2018, 2019 and again in 2020, our company was honored by the EPA and the ACS as a winner of the Green Chemistry Challenge Awards. In 2017, our scientists were recognized for the design and commercialization of a green synthesis of Prevymis™ (letermovir) utilizing state-of-the-art approaches to sustainable commercial manufacturing.

In 2018, our scientists were recognized for successfully applying green chemistry design principles to the commercial synthesis of PIFELTRO™ (doravirine), an antiviral drug approved in 2018 in the U.S. and Europe.

In 2019, we were recognized for changing the way we manufacture ceftolozane, a component of the antibiotic ZERBAXA® (ceftolozane and tazobactam).

In 2020, we were recognized for the discovery of a catalyst that improved the process used to produce certain antiviral drugs used for the treatment of diseases including hepatitis C and HIV, by reducing the PMI by 87 percent and eliminating the use of toxic reagents.

Since the establishment of the annual Green Chemistry Challenge Awards in 1996, we have been the only pharmaceutical company to be recognized with seven Green Chemistry Awards for innovative process improvements.

Energy

GRI 302 Management approach

As a global biopharmaceutical company, we recognize the important role we play in identifying, adapting and responding to the public health risks associated with climate change, such as threats to clean air and water, insufficient food supplies and the spread of disease. We believe our long-standing support of stronger health systems in underserved areas is even more important given the evidence that certain disease patterns are associated with changing climate conditions.

Our Energy Management Standard requires responsible and efficient energy management and associated greenhouse gas (GHG) emission reductions.

Energy-demand reduction and efficiency will always be part of our energy management strategy and will positively impact our efforts to reduce our global footprint.

Utilization of renewable energy is a growing expectation of industry. The advance in renewable technology, incentives through legislation and comparison with conventional technology and fuel prices have grown the industry and created a robust renewable energy market.

Programs and initiatives

We have made it a priority to reduce our demand for energy and have established internal policies and practices focused on reducing energy use at our sites and minimizing GHG generation throughout the company. By taking these steps, we are not only minimizing GHG emissions, but also reducing our operating costs and mitigating the business impacts expected to be associated with future climate change requirements.

Energy-efficiency and demand-reduction projects will continue to contribute to reducing both our energy consumption and direct GHG emissions. In addition, we will continue to optimize systems, consolidate excess facility space when possible and utilize renewable energy sources.

Our company has launched initiatives around the world to improve energy use, reduce GHG emissions from our operations and understand our supply chain-related impacts.

Our Global Energy & Sustainability CoE identifies, shares and standardizes best practices and prioritizes the funding of energy projects to reduce energy use across the company. Our manufacturing facilities, warehouses, laboratories, offices and vehicle fleet are the primary targets of our energy-demand-reduction programs, as they represent the majority of our energy consumption.

In 2020, our company's Energy Capital fund became the Sustainability Capital Fund, expanding the scope of the funds to water and waste projects. It is used exclusively for sustainability projects at sites around the world that bring long-term value to the company and focus on carbon footprint, water use and solid waste reduction. The fund allocates up to $12 million per year to adopt low carbon technology, better positions the company to respond to climate change and supports a more circular economy.

- Since 2015, our sites have completed more than 95 projects through the Sustainability Capital Fund. This has saved over $9 million per year, averaging a payback of about three and a half years and avoiding the production of 50,000 metric tons of carbon per year.
- In 2020, we allocated approximately $16.4 million to energy projects. The completed projects will result in $3.4 million in annual savings and a reduction of more than 10,000 metric tons of carbon dioxide from our facilities.
- For 2021, we have over 45 projects in progress, that when completed will reduce carbon dioxide emissions from our facilities by over 13,000 metric tons.

Facilities

We continuously strive to make our facilities energy-efficient. Our Global Energy & Sustainability CoE has created an "energy road map" to help our facilities reduce energy demand and associated GHG emissions. The energy road map's foundation includes large-scale metering and monitoring to assess and identify opportunities for continuous improvement. As facility energy management programs mature, energy savings are sought by improving the reliability of the equipment, the efficient operation of utility systems and building efficiencies into systems design.

We have also created a Low Carbon Transition Playbook (LCTP). The LCTP was a result of a cross-functional company effort that pulled together experts into a "design-thinking" workshop organized to develop strategies to reduce GHG emissions throughout the company. The LCTP includes a gap assessment for sites to evaluate the maturity of their energy programs and helps create short- and long-term plans to reduce sites' carbon intensity and build toward a carbon-neutral future.

All our new facilities are required to comply with our Energy Design Guide and Energy Conservation Planner. If we purchase a facility, it is evaluated for energy efficiency and assessed against our energy scorecard as part of its integration into our company.

All new laboratories, offices and major renovations are built following cost-effective and energy-efficient practices and are designed to meet Energy Efficient Design (EED) Management, Leadership in Energy and Environmental Design (LEED), or a comparable country standard (e.g. BREEAM, EXEED, HQE, etc.). Offices and laboratories are expected to achieve LEED Gold certification, at a minimum.

- Our China Head Office is certified as LEED Gold
- Our new South San Francisco, CA, office was certified LEED Gold in 2020, and is pursuing WELL Building Standard certification
- An operations support facility at our facility in Durham, North Carolina, is certified as LEED Silver
- Our lab in Carlow, Ireland, received both LEED Gold and Excellence in Energy Efficiency Design (EXEED) certification in 2019
- Development labs in both New Jersey and Pennsylvania are pursuing LEED Silver certification
- Two sites, one in New Jersey and one in Virginia, have received LEED Campus certification

We require our facilities to have a plan to manage their energy use. Examples of these plans and resources include:

- 11 European sites have maintained and/or achieved their certification of ISO50001:2018 for energy management to comply with the EU Energy Efficiency Directive audit requirements
- The EU Energy Efficiency Directive (EED) Phase Two compliance assessment was completed for all entities in the EU Region and all qualifying sites are undertaking energy audits to ensure compliance
- Our Global Energy & Sustainability CoE has provided tools for facility managers to identify opportunities to reduce energy use and eliminate waste. These tools include facility-wide, three-day Energy Treasure Hunts, half-day utility-system assessments (Energy Kaizens), and online Energy Treasure Hunts, which allow for best-practice sharing
- All our employees have access to a training curriculum that allows them to learn more about energy management and energy systems. Through this program, employees can earn an Energy Manager Certification. Site energy managers from more than 70 of our facilities are expected to complete the basic energy efficiency training curriculum

Work practices and recognition

Our company takes advantage of technological advances to save energy, time and money while also reducing emissions.

The strategies we employ include:

- Site energy use is tracked monthly by our Global Energy & Sustainability CoE through a centralized system. A global energy scorecard is issued monthly, and sites receive a letter grade based on an internal assessment of their energy intensity and performance. Our companywide average score has consistently been a top-level grade of "A-".
- A rollout of Energy Utility Analytics Technology for multiple sites that will enable continuous commissioning, energy efficiency improvements and reliability of assets.
- The development of an energy management strategy that seeks to achieve energy savings through continuous improvement, reliability, operations and design.

- A rail-travel option is included in our online business-travel booking tool to make it easier to travel by train when appropriate. Train travel has a smaller carbon footprint than traveling by either airplane or personal vehicle.

We worked with our three largest long-range freight carriers and even though the amount of material shipped by weight was about the same in 2020 vs. 2019, our transportation-related GHG emissions intensity decreased by shipment consolidation and by shifting away from air freight to ocean and overland ground freight whenever practical.

The winning projects included:

- A multi-year project that optimized a site's chiller plant in the U.S. In addition to energy and financial savings, this sites' effort helped create a cultural change among the operations team.
- A growing site commissioned state-of-the-art HVAC units and increased the efficiency of the older units. Efficiencies were gained through modified air change rates and the installation of efficient AHU fans.
- Replacement of four HVAC refrigerators that utilize R134A and R404A gas with three air-cooled ammonia chillers.

Renewable energy

As part of our new climate goals announced in 2021, we are accelerating by 15 years our previous 2040 goal to 2025 of sourcing 100 percent renewable energy such as solar and wind for purchased electricity (Scope 2). Photovoltaic arrays, wind turbines and other renewable-energy installations avoid emissions, help reduce energy-demand peaks and postpone or preclude adding new power plants.

We continually analyze our sites to look for opportunities for new onsite installations, power-purchase contracts, vendor-supplied renewable energy through the electrical grid and VPPA projects.

Several sites have incorporated renewable energy installations over the past several years.

In 2020, a new solar array was installed at one of our offices in Australia and our Singapore operations began the construction of solar arrays across several sites.

Our company recently signed three virtual power purchase agreements (VPPAs) for utility-scale energy projects based in Texas and Spain. These projects will address approximately 35 percent of our company's Scope 2 emissions by collectively adding 145 megawatts (MW) of solar and wind energy to the grid. These agreements follow a 2018 U.S. wind VPPA, which has added 60 MW of new renewable energy capacity, while providing our company with the associated renewable energy credits.

Vehicle fleet

Approximately nine percent of our total Scope 1 and 2 GHG emissions are associated with our vehicle fleet. We calculate our fleet's GHG emissions based on estimated fuel economy and actual total miles driven.

- In an ongoing effort to improve fuel efficiency, we have converted our U.S. sales fleet from cars with six-cylinder engines to cars with four-cylinder engines, replaced eight-cylinder-engine trucks with six-cylinder-engine trucks and introduced an all-wheel-drive (AWD) sedan option to replace AWD sport utility vehicles. This has resulted in fuel efficiency improvements from an average of 22 miles per gallon (mpg) in 2008 to an average of 27 mpg in 2020.
- 40 percent of our U.S. fleet are now partial-zero-emission vehicles (PZEV), and we are expanding our use of hybrid vehicles.
- Our European fleet continued to convert to the use of more fuel-efficient vehicles, including the availability of electric or hybrid vehicles being offered in over 50 percent of the markets.
- Over 50 percent of the vehicles being utilized in our Asia/Pacific markets are hybrids.
- We have started to introduce hybrid vehicles in Mexico and Peru and flex fuel vehicles are now being used in Brazil.

GRI 302-1	Energy consumption within the organization (Scopes 1+2)
GRI 302-4	Energy reductions

Total energy use	**2016**	**2017**	**2018**	**2019**	**2020**
Total energy use (GJ)	20,936,400	19,418,800	19,313,900	18,674,800	**18,045,200**

Scope 1 and location-based Scope 2 energy use (% of total)[1]	**2016**	**2017**	**2018**	**2019**	**2020**
Natural gas (Scope 1)	61%	60%	63%	63%	**65%**
Renewable energy generated and used onsite (Scope 1)[2]	0.04%	0.04%	0.05%	0.05%	**0.05%**
Purchased electricity (Scope 2)[3, 4]	23%	23%	23%	24%	**24%**
Fleet fuel (Scope 1)	12%	13%	10%	9%	**7%**
Fuel oil (Scope 1)	1%	2%	2%	2%	**2%**
Purchased steam (Scope 2)	2%	2%	2%	2%	**2%**
Bio-Fuel (Scope 1)	0.4%	0.6%	0.6%	0.6%	**0.7%**
Spent solvents (Scope 1)	0.1%	0.0%	0.0%	0.0%	**0.0%**
Coal (Scope 1)	0.0%	0.0%	0.0%	0.0%	**0.0%**

Note: We have defined "purchased electricity" as electricity sourced from external suppliers as well as renewable electricity that was generated and utilized onsite where we retained the renewable attributes or where we have obtained renewable attributes through contract. GHG figures have been changed from our 2019/2020 report, due to a collection methodology update since our last report.

[1] May not add to 100 percent due to rounding.

[2] Includes solar, wind and other renewables generated onsite where renewable energy credits or guarantees of origin have been retained or retired.

[3] Reported using Scope 2 location-based value in accordance with the Greenhouse Gas Protocol.

[4] Includes solar, wind and other renewables generated onsite where renewable energy credits (RECs) have been sold.

ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

Scope 1 and market-based Scope 2 energy use (% of total)[1]	2016	2017	2018	2019	2020
Natural gas (Scope 1)	61%	59%	62%	62%	**63%**
Renewable energy generated and used onsite (Scope 1)[2]	0.3%	1.1%	3.1%	6.0%	**9.1%**
Purchased electricity (Scope 2)[3, 4]	23%	22%	20%	18%	**15%**
Fleet fuel (Scope 1)	12%	12%	10%	9%	**7%**
Purchased steam (Scope 2)	2%	3%	3%	3%	**3%**
Fuel oil (Scope 1)	2%	2%	2%	2%	**1.8%**
Bio-Fuel (Scope 1)	0.4%	0.6%	0.6%	0.6%	**0.7%**
Spent solvents (Scope 1)	0.1%	0.0%	0.0%	0.0%	**0.0%**
Coal (Scope 1)	0.0%	0.0%	0.0%	0.0%	**0.0%**

[1] May not add to 100 percent due to rounding.
[2] Includes solar, wind and other renewables generated onsite where renewable energy credits or guarantees of origin have been retained or retired.
[3] Reported using Scope 2 location-based value in accordance with the Greenhouse Gas Protocol.
[4] Includes solar, wind and other renewables generated onsite where renewable energy credits (RECs) have been sold.
ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

In 2020, our purchased electricity consumption decreased due to energy efficiency projects, an increase in renewable energy utilization and a temporary shutdown of office spaces in response to COVID-19. Our fleet's fuel usage continued to decrease as well.

In March 2021, the U.S. EPA again recognized our company with our 14th consecutive Sustained Excellence Award. This is also the 16th consecutive year in which we have been recognized by ENERGY STAR for excellence in energy management.

In 2020, our company continued to successfully use ENERGY STAR benchmarking tools such as the ENERGY STAR Portfolio Manager to obtain the ENERGY STAR Certified Building label for four buildings including:

- A data center in New Jersey that obtained a perfect score of 100
- A research office in Pennsylvania for the 9th consecutive year
- Two office buildings in Pennsylvania and New Jersey for the 2nd consecutive year

Our Puerto Rico facility was awarded the ENERGY STAR Pharma Energy Performance Indicator (EPI) for superior energy efficiency and environmental performance among U.S. pharmaceutical manufacturing plants for the 12th consecutive year.

For more information, please see GRI 305-5 on page XX. A link to our CDP Climate Change Questionnaire is available on the Resources page in the Responsibility section of Merck.com.

Water

GRI 303 Management approach

As we strive to meet the health needs of our patients, we are increasingly operating in regions of the world where access to clean water and proper sanitation is under great pressure. Even in established markets, our business faces water-related risks.

Our global water strategy aims to achieve sustainable water management within our operations and our supply chain, which supports UN SDG 6, "Clean Water and Sanitation." To achieve these strategic objectives, we are focusing on the following commitments:

- Ensuring that our wastewater discharges comply with local and national standards, as well as internal company requirements
- Understanding and controlling our operational water footprint
- Managing water risk at our facilities and in our supply chain
- Reporting publicly on our water use and goals

For the past four years, we have conducted supplier sustainability surveys using the PSCI Survey. In 2020, the survey was sent to approximately 113 of our strategic suppliers, with a 96 percent response rate. Through this engagement suppliers were requested to identify water use reduction opportunities and goals.

We are on track for our 2025 supplier goal, as 45 percent of high impact suppliers have water use reduction targets.

For further information on supplier environmental assessments, please see GRI 308 on page X.

FPO, will restyle

We have established water goals to help us manage water-related risks in our operations and supply chain:

Internal operations

By 2020, we will develop water conservation plans for sites in "high water risk" locations.

Progress:

Achieved

Internal operations

By 2025, we will maintain global water use at or below 2015 levels.

—

3.6 million m^3 below 2015 levels (14% reduction)

Progress:

On track

Supply chain

We will collect water use data from at least 90% of our strategic suppliers with the highest environmental impact.

—

GHG and water data collected from 96% of high-impact strategic suppliers

Progress:

Achieved

Supply chain

By 2020, we will engage with those suppliers and request them to identify water use reduction opportunities.

Progress:

Achieved

Supply chain

By 2025, at least 90% of our strategic suppliers with the highest environmental impacts will set their own water use reduction targets.

Progress:

On track

Governance

Water management is overseen globally by the Water CoE. This CoE reviews water data to monitor sites' progress, and provides assistance as needed to support sites' work towards meeting these goals. The Environmental Review Committee provides oversight in establishing our internal Environmental Quality Criteria (EQC) standards.

Each site is responsible for management of water resources. In many cases, the Water CoE partners with sites and provides assistance in working toward meeting the corporate water goal.

In 2020, our Energy Capital fund became the Sustainability Capital Fund, expanding the scope of the fund to water and waste projects. It is used exclusively for sustainability projects at sites around the world that have the potential to bring long-term value to the company and focus on carbon footprint, water use and solid waste reduction. The fund allocates up to $12 million per year, which allows us to adopt low carbon technology, better positions the company to respond to climate change and supports a more circular economy. In 2020, we allocated approximately $400,000 to water projects. The completed projects will result in $148,000 in annual savings.

For more detailed information on our environmental management and governance, please see GRI 307 on page X.

Stewardship

We have endorsed the UN CEO Water Mandate, a public commitment to adopt and implement a comprehensive approach to water management, and we have aligned our water program with its principles.

CEO Water Mandate endorsers have a responsibility to make water-resource management a priority and to work with governments, UN agencies, NGOs, local communities and other interested parties to address global water challenges. We are working to identify partnerships that will help us advance our water stewardship priorities in the areas in which we operate. These projects also support the goals of SDG 15, which strives to "protect, restore and promote sustainable use of terrestrial ecosystems."

We report our water security annually through CDP. In 2020, CDP graded our disclosure with a B "management" rating, indicating that we "provide evidence of actions associated with good environmental management", and are "taking coordinated action on water security."

In 2020, we supported the Keystone 10 Million Tree Partnership project with funding for 100,000 trees through the organization One Tree Planted. This project is focused on planting trees in Pennsylvania to help protect the Chesapeake Bay. Over the years, the Chesapeake Bay has suffered degradation due to development and changing sea levels, as well as pollution. Planting trees will restore degraded areas as well as assist in the restoration and filtration of this sensitive water system. Planting of trees upstream of the bay in Pennsylvania will result in improvements in biodiversity, reduce pollution and benefit the local community. Our site located in Riverside, Pennsylvania, is within the Chesapeake Bay catchment.

Our 2019 contribution of $100,000 to the Nature Conservancy's (TNC) Mantiqueira Restoration Fund near our Cruzeiro, Brazil, site enabled TNC to work with landowners and other decision-makers to advance policies and improve the economic benefits of restoration and ecosystem services. TNC developed the science, innovative tools and monitoring systems needed to guide restoration efforts. TNC has also strengthened local capacity for implementing restoration.

Key measures of success of the project were:

- Engagement with 200 landowners on restoration
- Development of municipal programs to support restoration
- Leveraging financial support for landowners for restoration
- Municipal staff trained on writing restoration projects
- Creation and development of the Mantiqueira Portal, a website that gathers data about rural properties that have been partially restored
- Creation of a regional database
- Diversification of restoration methods in the Cruzeiro Demonstration Unit
- Formalization of the Paraíba Valley Agroforestry Network
- Support of forest products

GRI 303-1 Water as a shared resource

Access to clean water is critical for human health and is a key input to our manufacturing operations.

In establishing our public water risk goal, we focused on the sites most critical to our operations—those with high water use (i.e. greater than 100,000 m³ annually) that were located in areas considered to be of high risk after assessment. These are our "priority" sites.

We use the World Resources Institute's (WRI's) Aqueduct Water Risk Atlas tool as an initial step to measure and map our water risks. Sites are categorized using the "Baseline Water Stress" indicator, which is the ratio of total annual water withdrawals to total available annual renewable supply, and accounts for up-stream consumptive use. Higher-stress values indicate more competition among water users.

In 2020, the WRI Aqueduct tool identified five of our manufacturing and/or research facilities being in areas with "extremely high" and nine in areas with "high" Baseline Water Stress. High water-use sites (i.e. greater than 100,000 m³ annually) were assessed further through a study with WRI, which provided information on the steps and data required to assess exposure to water-related business risks around selected catchments and facilities. Sites were deprioritized when results of the detailed catchment-specific studies with WRI indicated lesser risk than was indicated by the Aqueduct tool.

This exercise enabled us to better prioritize facilities and catchments for water stewardship activities and lay the foundation for potential future water targets in priority locations. Globally, two priority sites have been identified through this methodology and have water conservation plans in place. We work with a third-party water use expert to evaluate opportunities for water use reductions at priority sites, resulting in site-specific water management plans.

Existing and acquired sites will continue to be monitored for risk according to the established methodology as general practice. Sites with a rating of "high" or "extremely high" risk and water withdrawal of less than 100,000 m³ will also be further assessed and water management plans will be put in place as needed.

The facilities that use the most water in our network are U.S.-based. Of these, two are in areas of "high" Baseline Water Stress according to the Aqueduct tool but were identified as only medium risk based on the results of WRI deep-data dive water risk assessment.

GRI 303-2 Water discharge-related impacts

We conduct environmental risk assessments on our products (small molecules, biologics and vaccines), from the development phase through product launch, to understand and manage product impacts both from manufacturing and patient use. We assess products in a manner consistent with the most stringent applicable global regulations, including the regulatory review processes of the U.S. Food and Drug Administration and the European Medicines Agency. Product environmental safety profiles are reassessed during periodic renewals of product filings, and risk-mitigation actions are implemented when needed.

We use the information from our risk assessments to establish or update our internal, compound-specific Environmental Quality Criteria (EQCs), which are used to confirm that wastewaters discharged from our facilities do not contain levels of residual products that present a risk to human health or the environment. Our manufacturing facilities are required to use these EQCs, along with industry-accepted risk-assessment methods, to establish procedures for managing and controlling active pharmaceutical ingredients (APIs) in their wastewater. Each facility uses the internal EQC standards to:

- Assess the potential risk from its operations using science-based and industry-accepted risk assessment methods
- Minimize environmental impacts from wastewater discharges in the local watershed
- Establish procedures for managing, treating or controlling APIs in wastewater prior to discharge where needed

Our production facilities have, or will be provided with, API-treatment technology such as advanced oxidation where needed, so that our wastewater discharges meet both regulatory requirements and these internal standards.

We also provide EQC information to suppliers that manufacture pharmaceutical compounds for us and have initiated detailed assessments of our suppliers to better understand and address potential impacts.

In addition, as a member of the Antimicrobial Resistance (AMR) Industry Alliance and signatory to the Industry Roadmap for Progress on Combating AMR, we are working to deliver on our commitments to reduce the environmental impacts from antibiotic residues in wastewater through implementation of the AMR Alliance Common Antibiotic Manufacturing Framework. We have reviewed the operations of our human health antibiotic chemical synthesis facilities and third-party human health antibiotic suppliers to assess their wastewater treatment controls and have recommended improvements where needed, which we will follow through to completion. We have developed a mechanism for transparently demonstrating that our supply chains meet the standards in this framework, which is presented in the AMR Industry Alliance 2020 Progress Report.

We participate in efforts to address water discharge related impacts with various organizations, including the European Federation of Pharmaceutical Industries and Associations (EFPIA) and the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA). The EFPIA, Medicines for Europe and the Association of the European Self-Medication Industry (AESGP) have worked together to develop the Eco-Pharmaco-Stewardship (EPS) initiative. The EPS initiative considers the environmental impacts of a medicine throughout its entire life cycle and addresses the roles and responsibilities of all parties in managing those impacts. This includes public services, the pharmaceutical industry, environmental experts, doctors, pharmacists and patients.

For more information on our supply chain, please see section GRI 102-9 on page XX.

Please refer to the following resources for additional information related to water related discharge impacts on the ESG Policies & Resources page of Merck.com:

- Public Policy Statement: Water Stewardship
- Public Policy Statement: Pharmaceuticals in the Environment
- Global Antimicrobial Resistance Action Plan
- CDP-Water Security 2020
- Business Partner Code of Conduct

GRI 303-3 Water withdrawal

Water use by source (million m³)[1]	2015	2016	2017	2018	2019	2020
Groundwater	12.3	10.4	10.2	10.5	10.4	**10.3**
Surface water	3.9	3.2	2.7	2.4	2.7	**2.9**
Purchased water	7.7	7.1	6.7	7.7	7.4	**7.3**
Total[2]	23.9	20.7	19.7	20.6	20.4	**20.5**

[1] In accordance with the Greenhouse Gas Protocol, prior-year data have been adjusted to add or remove facilities that have been acquired and sold. Adjustments also reflect changes in methodology to ensure consistency from year to year.

[2] All values above are rounded to one decimal place. As a result, the total values shown are not equal to the sum of the individual source totals.
ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

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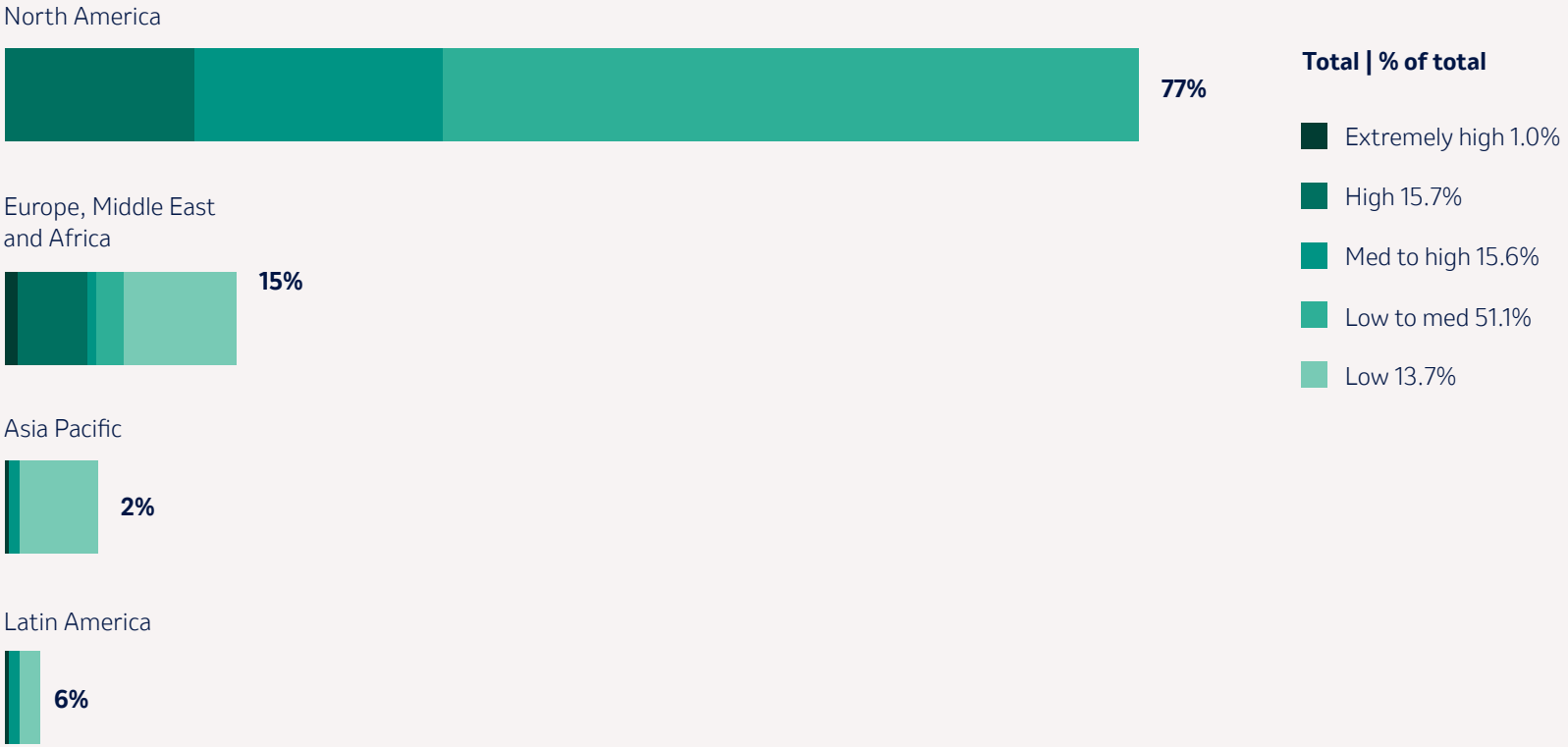
Water use by risk in the following tables is categorized according to data obtained via the WRI Aqueduct Water Risk Atlas Tool. We understand that following further assessment site water-risk categorization could change.

For information on our water risk assessment approach, please see GRI 303-1 on page X.



Water use and risk by region (million m³)	Extremely high	High	Med to high	Low to med	Low	N/A	% of Total	Total
North America	0.00	2.28	2.98	10.17	0.29	0.05	77%	15.77
Europe, Middle East and Africa	0.16	0.83	0.11	0.33	1.35	0.22	15%	2.99
Asia Pacific	0.02	0.00	0.12	0.00	0.94	0.23	6%	1.31
Latin America	0.03	0.11	0.00	0.00	0.24	0.07	2%	0.45
Total	0.21	3.22	3.20	10.50	2.81	0.57	-	20.53

Water use in areas of high to extremely high water risk by region (million m³)	Groundwater	Surface Water	Purchased Water	Total
North America	0.41	0.00	1.87	**2.28**
Europe, Middle East and Africa	0.23	0.00	0.76	**0.99**
Asia Pacific	0.00	0.00	0.02	**0.02**
Latin America	0.04	0.00	0.11	**0.14**
Total	0.67	0.00	2.76	**3.44**

ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

In 2020, we used 20.5 million cubic meters of water globally, versus 23.9 million cubic meters in 2015, representing a 14 percent reduction in water use.

Approximately 14 percent of the total water we used in 2020 was supplied from surface water sources, and 50 percent was supplied by groundwater water sources, with the balance sourced from municipal water supplies.

Our sites employ a variety of technologies and techniques aimed at reducing our water footprint and improving operational performance. Closed-loop cooling systems, which reduce freshwater use, are employed at many of our facilities worldwide. Reverse osmosis (RO) "reject water" is reused for non-potable and non-process applications such as cooling tower feed water. In all, 1.1 million cubic meters of water was recovered, reused or recycled at our facilities in 2020, which is equivalent to five percent of our total water use.

Our water-use-reduction initiatives include:

- Consideration of water use in process design
- Cooling-system optimization
- Prompt repairs and maintenance of steam-distribution systems and traps
- Recovery and reuse of steam condensate and "reject water"
- Process-water purification system optimization
- Avoiding the use of water in mechanical seals, such as those in pumps

For information on the specific water sources affected in areas experiencing high and extremely-high water risk, please see our CDP Water Security response. For our water assurance letter, please visit ESG Policies & Resources page on our corporate website.

GRI 303-4 Water discharge

Total water discharge by region (million m³)	Surface Water	External Treatment Facilities	Total[1]	% of Total
North America	10.31	3.69	14.00	**78%**
Europe, Middle East and Africa	1.08	1.88	2.96	**16%**
Asia Pacific	0.07	0.70	0.77	**4%**
Latin America	0.00	0.33	0.33	**2%**
Total	11.46	6.58	18.05	**100%**

[1] All values above are rounded. As a result, the total values shown are not equal to the sum of the individual source totals.
ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

Water discharge in areas of high to extremely high water risk, by region (million m³)	Surface Water	External Treatment Facilities	Total
North America	0.49	1.51	**2.00**
Europe, Middle East and Africa	0.02	1.00	**1.02**
Asia Pacific	0.00	0.02	**0.02**
Latin America	0.00	0.11	**0.11**
Total	0.50	2.65	**3.15**

Note: All values above are rounded. As a result, the total values shown are not equal to the sum of the individual source totals.
ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

Wastewater from our facilities is managed and treated to meet regulatory standards and minimize environmental impacts prior to discharge. On-site wastewater treatment facilities are operated at many of our production and research facilities. Where on-site treatment is not provided, wastewater is discharged to local municipal wastewater treatment facilities that have the technology and capacity to treat our wastewater. As a company, we currently do not differentiate discharges to freshwater and seawater in our enterprise system. The majority of our facilities discharge to freshwater environments.

As described in GRI 303-2, many of our production facilities are equipped with advanced wastewater treatment technologies to ensure that our facilities meet both regulatory requirements and the internal standards required by our EQC Program.

Emissions

GRI 305 Management approach

Scientific data support that climate change is occurring, and we are taking action to reduce the economic and public health risks associated with a changing climate.

We have adopted a set of environmental sustainability goals to help position our company to succeed in an increasingly resource-constrained world. These were developed to address the rising expectations of our customers, investors, external stakeholders and employees regarding the environmental impact of our operations and supply chain.

We have made progress on these goals and remain on track to achieve them. We continue to find ways to decrease energy demand and have increased the amount of renewable energy we purchase. Our procurement team is engaging our strategic suppliers in our efforts to reduce the environmental footprint outside of our operations.

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GHG emissions

Goal: By 2025, we will reduce global Scope 1 and market-based Scope 2 GHG emissions by at least 40% from 2015 levels.

Progress:

31.7% reduction

Renewable energy

Goal: By 2025, 100% of our purchased electricity will come from renewable sources.

Progress:

37.7% of our purchased electricity comes from renewables

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GHG emission goals

Goal: We will collect GHG data from at least 90% of our strategic suppliers with the highest environmental impact.

Progress:

Achieved

Goal: By 2020, we will engage with those suppliers and request them to identify GHG emission reduction opportunities.

Progress:

Achieved

Goal: By 2025, at least 90% of our strategic suppliers with the highest environmental impacts will set their own GHG emission reduction targets.

Progress:

On Track

The World Resource Institute's Greenhouse Gas Protocol defines Scope 1 GHG emissions as emissions from owned or controlled sources such as onsite fuel combustion and fleet vehicles. Scope 2 emissions are those from indirect sources such as purchased electricity. Scope 3 includes indirect emissions in a company's value chain.

For the past four years, we have conducted a supplier sustainability survey through the PSCI. In 2020, the survey was sent to approximately 115 of our strategic suppliers, with a 96 percent response rate. Through this engagement suppliers were requested to identify GHG reduction opportunities and goals.

We are on track to achieve our 2025 supplier goal as 52 percent of our high impact suppliers currently have GHG emission reduction targets.

In 2021, we committed to becoming carbon neutral across operations (Scopes 1 & 2) by 2025 and to reduce our value chain (Scope 3) emissions by 30 percent by 2030. We will achieve carbon neutrality in our operations with ongoing innovation to increase energy efficiency, applying sustainable building standards and continuing to transition away from fossil fuel use. Remaining Scope 1 emissions will be balanced each year by investing in high-quality carbon offsets, including carbon removal offsets. These goals expand our company's current actions and complement our commitment to set to new science-based targets for certification through the Science-Based Targets Initiative (SBTi).

As part of our new goals, we are also accelerating by 15 years our previous 2040 goal of sourcing 100 percent renewable energy such as solar and wind for purchased electricity (Scope 2).

Governance

Our climate strategy is overseen by our Environmental Sustainability CoE in partnership with our Global Energy & Sustainability CoE and Energy Procurement CoE. The CoEs review and report data, monitor progress, and provide assistance as needed, to support sites' work towards meeting our goals and review possible above-site renewable energy projects.

Each site is responsible for the management of their energy use. In many cases, our company partners with our third-party Integrated Facility Management (IFM) providers to manage energy use and work toward achieving the corporate goals.

For information regarding our environmental management and governance, please see Section 307 on page X

GRI 305-1	Direct GHG emissions (Scope 1)
GRI 305-2	Indirect GHG emissions (Scope 2)
GRI 305-3	Other indirect GHG emissions (Scope 3)
GRI 305-4	GHG emissions intensity
GRI 305-5	Reduction of GHG emissions

GHG Emissions in 2020

Scope 1:	738,400 MT CO_2e
Scope 2 (market-based):	255,400 MT CO_2e
Scope 3:	7,103,450 MT CO_2e

Total GHGs (MT CO_2e)[1]	2015	2016	2017	2018	2019	2020
Scope 1	869,200	861,500	806,200	800,000	799,000	**738,400**
Scope 2 location-based	548,200	503,600	458,100	433,000	413,800	**392,400**
Scope 2 market-based	586,300	536,500	473,000	399,300	318,400	**255,400**
Total GHGs (Scope 1 & 2 market-based)	1,455,500	1,398,000	1,279,200	1,198,300	1,077,100	**993,800**
Scope 3 GHGs	5,586,300	7,975,100	6,586,100	6,239,800	6,965,600	**7,103,450**
GHG intensity	21.4	20.6	18.5	17.4	15.2	**13.4**

[1] In accordance with the Greenhouse Gas Protocol, prior-year data have been adjusted to add or remove facilities that have been acquired and sold. Adjustments also reflect changes in methodology to ensure consistency from year to year.

[2] Total Scope 1 & Scope 2 market-based metric tons CO_2e per employee.

ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

Scope 3 GHGs details (MT CO_2e)[1]	2015	2016	2017	2018	2019	2020
Purchased goods and services[1]	3,864,900	6,204,000	4,997,600	4,595,600	5,155,100	**5,403,700**
Capital goods[1]	112,700	224,000	192,900	229,200	339,900	**470,200**
GHG emissions from fuel and energy-related activities not included in Scopes 1 & 2[2, 3]	276,200	304,500	262,100	243,400	240,700	**203,250**
Upstream transportation and distribution[1]	222,200	255,500	267,100	274,100	271,200	**263,100**
Waste generated in operations (excluding recycled & composted waste)[4, 5]	20,600	16,800	16,000	18,200	19,500	**22,000**
GHG emissions related to employee business travel[6, 7]	283,300	265,400	218,200	301,100	340,400	**217,100**
Employee commuting	302,400	301,500	262,200	264,400	272,000	**127,600**
Downstream transportation and distribution[8]	211,000	118,000	121,900	120,800	133,200	**145,100**
GHG emissions from use of sold products[9]	255,000	248,400	205,800	148,100	142,100	**205,500**
End-of-life treatment of sold products[10]	38,000	37,000	42,200	44,900	51,500	**45,900**
Total[11]	5,586,300	7,975,100	6,586,100	6,239,800	6,965,600	**7,103,450**

Note: Limited Data Assurance was granted for emissions calculated from primary travel vendor data and employee reimbursable travel mileage data. The total reported here includes non-primary travel vendor data emissions which were based on our 2020 third-party spend data and an Economic Input-Output Model performed by Climate Earth, Inc.

[1] Based on third-party spend data and an economic input-output model performed by Climate Earth, Inc.

[2] Emission factors from Argonne National Laboratory's GREET Model (https://greet.es.anl.gov/) were used in conjunction with primary fuel and energy-use data.

[3] Data as reported historically, not baseline adjusted.

[4] Primary-waste data were used with the U.S. EPA's WARM Model (https://www.epa.gov/warm).

[5] Including recycled and composted waste in these calculations, would result in negative emissions in), 2015 (-40,200 MT CO_2e), 2016 (-60,200 MT CO_2e), 2017 (-41,200 MT CO_2e), 2018 (-43,700 MT CO_2e), 2019 (-62,400) and 2020 (-48,900 MT CO_2e).

[6] Based on primary travel vendor data, employee-reimbursable mileage and UK Defra factors (https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting#conversion-factors-2015).

[7] Emissions are based on primary vendor data where available and economic input-output modelling performed by Climate Earth, Inc., using spend data.

[8] Emissions were calculated using our "Upstream transportation and distribution" spend data as a worst-case estimate entered into the WRI Quantis tool. We assumed that all "downstream" material would first have been stored, transported and handled "upstream."

[9] Assumes that all HFC-containing devices shipped for sale were consumed. The amount and identity of HFC in each product is calculated and multiplied by the appropriate global warming potential (GWP) to determine the CO_2e released as a result of product use.

[10] Calculated assuming that all primary, secondary and tertiary packaging purchased was disposed of by our customers. Packaging material data was used with the U.S. EPA's WARM Model.

[11] May not add up to total due to rounding.

ERM conducted an independent third-party review of our 2020 greenhouse gas and water inventories and provided limited assurance for the data that we submit to CDP and for inclusion in this report. To view ERM's limited assurance letter for our environmental data, please visit the Resources link on the Responsibility page of our corporate website. The verification standard used is ISO14064-3.

Reduction of GHG emissions

From 2019 to 2020, we reduced our year-over-year Scope 1 and Scope 2 market-based GHG emissions by eight percent due to our continued focus on energy efficiency and an increased utilization of renewable energy.

We have analyzed and reported our Scope 3 impacts using primary operating data, accepted emission factors and an economic input-output model based on our third-party spend. In 2020, our Scope 3 GHG emissions increased slightly as compared to 2019. While our business travel decreased sharply due to the pandemic and many employees were able to work from home offices, we continued our manufacturing and research operations as well as continued the execution of many on-going capital projects.

Our analysis shows that our Scope 3 GHG emissions impacts are nearly three times greater than our combined Scope 1 and Scope 2 emissions. We are working to reduce those impacts through activities such as reducing waste in our operations, creating more sustainable packaging, and changing the way we commute to work and travel for business. We are also engaging with our strategic suppliers to identify ways to reduce GHG emissions in our supply chain. These actions not only reduce our environmental impact, but benefit the business by reducing costs.

We report our GHG emissions as required by regulations in certain countries and annually through CDP (formerly Carbon Disclosure Project). In 2020, CDP graded our disclosure as a "B" or a rating of "management", indicating that we are "taking coordinated action on climate issues."

For more information on our initiatives, policies and accomplishments, please see Section GRI-302 energy and the following resources on the ESG Policies & Resources page of Merck.com

- Corporate Policy: Respect for EHS
- Public Policy Position Statement: Climate Change
- Business Partner Code of Conduct

GRI 305-6	Ozone-depleting substances (ODS)
GRI 305-7	NO_x, SO_x and other emissions

We are committed to controlling air emissions from our facilities to reduce local, regional and global environmental impacts.

Air emissions are generated by our manufacturing and research operations, as well as by burning fuel in on-site equipment and fleet vehicles. Our Air Management Standard requires our facilities to quantify and control air emissions to comply with both applicable regulations and emission standards.

Any increase in production can negatively impact our emissions trends. Though there are efforts to minimize solvent use in production, solvents are needed for cleaning and disinfecting purposes. As the company transforms from manufacturing of pharmaceuticals to biopharmaceuticals, mandatory cleaning and disinfection protocols associated with biologics and vaccines are increasing solvent based emissions.

The Montreal Protocol mandates phase-out of refrigerants that are ozone depleting substances (ODS) per schedules approved for individual countries. Our facilities strive to maintain compliance with applicable regulatory requirements that have been established in accordance with each country's commitments.

Our company's Air CoE provides assistance as needed to our facilities to obtain appropriate environmental permits, and to quantify and control air emissions to comply with applicable regulations and emission standards.

Production and research emissions

Many of our pharmaceutical manufacturing processes, cleaning/disinfection operations and research laboratories require the use of solvents. Evaporation of solvents into the air is our primary source of volatile organic compound (VOC) emissions. In an effort to reduce VOC emissions, reduction in solvent usage has been incorporated as an element of our Green & Sustainable Science program (see Section 301 on page X for more information).

Key elements of the program include designing efficient processes that use fewer and less-hazardous organic solvents and using water-based methods for cleaning our process equipment where they are as effective as solvent-based methods. To reduce emissions from processes where organic solvents are used, we use pollution-control technologies such as conservation vents, carbon filters, thermal oxidizers, condensers and scrubbers.

Fossil fuel combustion emissions

Air emissions are also generated by burning fuel in our boilers and power-generation turbines (for heat and energy), and by other combustion processes, such as thermal oxidizers (for treating air emissions) and incinerators (for destroying waste). Our fleet vehicles and aircraft also burn fuel and generate air emissions. These combustion processes result in emissions of carbon dioxide (CO_2), nitrogen oxides (NO_x), sulfur oxides (SO_x) and volatile organic compounds (VOCs). We strive to make our facilities more energy-efficient through our energy-management programs and to improve the fuel efficiency of our fleet vehicles. By making these improvements, we also reduce emissions of CO_2, NO_x, SO_x and VOCs from our operations.

Air pollutant emissions by type (MT)[1]	2016	2017	2018	2019	2020
Nitrogen oxides (NO_x)	460	487	504	395	**396**
Sulfur oxides (SO_x)	37	37	31	27	**23**
Volatile organic compounds (VOCs)	440	384	411	399	**383**
Ozone-depleting substances (ODS)	0.7	0.1	0.3	0.7	**0.3**

Note: Previously reported data have been restated per our methodology, which includes adding facilities that have been acquired and removing facilities that have been sold as operating sites.

[1] Data are estimated using conservative assumptions and factors, not measured or weighed.

Our 2020 NO_x emissions remained consistent with 2019 levels despite the use of emergency generators at our Puerto Rico facility that were required during an extended power outage caused by earthquakes and Tropical Storm Laura. However, this increase in emissions was counterbalanced by a reduction in emissions throughout our network due to a decrease in emissions from our jet and fleet operations as a result of the COVID-19 pandemic.

The decrease in SO_x emissions from 2019 to 2020 can be attributed to the use of fuel with a lower sulfur content.

VOC emissions decreased from 2019 to 2020 due to variations in production and because of continuous data collection improvements with the adoption of more accurate emission-tracking methods.

Emissions of ozone-depleting substances are the result of non-routine releases from temperature-control and fire-suppression systems and can vary from year to year.

For more information, please refer to the other sections of GRI 305 and GRI 307 (page X).

Effluents & waste[1]

GRI 306 Management approach

The proper management of waste from our facilities is important to the communities in which we operate and is the focus of our environmental permits and other regulatory requirements.

Our waste management standard requires our facilities to comply with applicable generation, management and disposal regulations and standards.

To minimize our environmental footprint and align with the U.N. Sustainable Development Goals (SDGs), we look for opportunities to avoid the use of hazardous materials, to reuse or recycle materials and to prevent the generation of waste. When prevention, reuse and recycling are not practical or feasible, we apply controls and treatment technologies to prevent human health impacts and minimize environmental impacts.

The amount of waste we generate reflects the efficiency of our manufacturing processes. Our facilities track and report the amount of operational waste they generate and how it is managed.

We continuously strive to reduce the amount of operational waste we generate and to maximize the use of environmentally beneficial disposal methods such as recycling, composting and waste-to-energy.

Governance

Waste management is overseen globally by our Waste and Dangerous Goods CoE. This CoE reviews waste data to monitor sites' progress, and provides assistance as needed to support the sites' work toward these goals.

Each site is responsible for the management of its waste. In many cases, we partner with our third-party Integrated Facility Management (IFM) partners to manage site waste and work toward realizing the corporate waste goals.

For information regarding our environmental management and governance, please see section GRI 307 on page XX.

Waste minimization begins with the upfront evaluation of our product designs and manufacturing processes. Through our Green and Sustainable Science program (see GRI 301 on page XX), we design processes that use safer chemicals, consume less energy, use less water and other resources and generate less waste. Our process development biologists, chemists and engineers have the expertise to create more sustainable ways to make our products.

To ensure our waste is managed in an environmentally responsible manner, we use only approved waste disposal facilities. Approved facilities demonstrate that they have the systems, technologies and practices to manage our waste streams responsibly and in compliance with all applicable requirements. We routinely audit these facilities to verify the acceptability of their systems and practices.

Waste types are defined differently in various parts of the world. For this report, we have divided our operational waste into two categories:

Hazardous waste: Highly regulated or high-risk waste streams that need to be neutralized, treated or destroyed to address a particular

[1] Data for this section are captured in corporate managed data systems. Data from the Merck Animal Health Intelligence (MAHI) facilities, which were acquired in 2019 and thereafter, are not yet included. These metrics will be reported in the future as these sites become fully integrated into the company internal reporting processes.

hazard such as toxicity, flammability, corrosivity, radioactivity, pharmaceutically active or infectious.

Non-hazardous waste: This includes all other operational waste. The amount of construction project related waste can vary significantly from year to year based on the number and size of projects. Therefore, our definition of operational waste does not include construction or demolition waste from construction projects.

Over the past few years, a number of countries in Asia have enacted legislation restricting the acceptance of solid waste from other countries. Historically, a large percentage of recyclable waste collected in the U.S. has been shipped to Asia for recycling, so this change had and continues to have the potential to affect the percentage of our non-hazardous waste sent for recycling. However, this change had minimal impact on our recycling rates in the past year. The percentage of our non-hazardous waste sent for recycling decreased from 40 percent to 39 percent from 2019 to 2020.

In 2020, our Energy Capital fund became the Sustainability Capital Fund, expanding the scope of the funds to water and waste projects. It is used exclusively for sustainability projects at sites around the world that bring long-term value to the company and focus on carbon footprint, water use and solid waste reduction. The fund allocates up to $12 million per year which allows us to adopt low carbon technology, better positions the company to respond to climate change and supports a more circular economy. In 2020, we allocated approximately $262,500 to waste projects.

GRI 306-3 Waste generated

A "significant environmental event" is defined as an environmental release that results in environmental harm to humans, aquatic organisms or wildlife.

We experienced no significant environmental events in 2020.

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Waste management goals

Goal: By 2025, no more than 20% of our global operational waste will be sent to landfills and incinerators (without energy recovery).

Progress:

28% to landfills and incinerators (without energy recovery)

Goal: By 2025, at least 50% of our sites will send zero waste to landfills.

Progress:

48% of sites

GRI 306-4	Waste diverted from disposal
GRI 306-5	Waste directed to disposal
SASB 250a.4	Amount of product accepted for takeback, reuse, or disposal

Global operational waste	2016	2017	2018	2019	2020
Incinerated (without energy recovery)	20%	19%	24%	19%	**23%**
Landfilled	10%	10%	9%	7%	**5%**
Total	30%	29%	33%	26%	**28%**

Hazardous waste (MT)	2016	2017	2018	2019	2020
Incinerated (without energy recovery)	13,186	13,462	17,639	14,025	**16,649**
Energy recovery	9,871	9,538	10,300	13,655	**15,330**
Recycled	6,135	7,979	6,827	8,034	**8,685**
Other	2,425	2,423	2,221	1,865	**1,662**
Reused	2,132	1,505	695	1,147	**480**
Landfilled	1,492	745	731	938	**198**
Composted	5	0	0	0	**0**
Total	35,246	35,652	38,413	39,674	**43,004**

Non-hazardous waste (MT)	2016	2017	2018	2019	2020
Incinerated (without energy recovery)	1,361	426	374	477	**1,124**
Energy recovery	10,342	8,576	9,273	10,030	**8,280**
Recycled	14,636	15,188	12,975	14,188	**13,537**
Other	445	212	209	1,025	**1,717**
Reused	972	1,071	2,204	660	**963**
Landfilled	5,826	6,633	5,684	4,603	**4,061**
Composted	3,771	4,668	4,798	4,843	**4,892**
Total	37,353	36,774	35,517	35,826	**34,574**

Hazardous and non-hazardous waste (MT)	2016	2017	2018	2019	2020
Recycled, energy recovery, reused or composted	47,864	48,525	47,072	52,557	**52,167**
Landfilled and incinerated (without energy recovery)	21,865	21,265	24,428	20,053	**22,032**
Incinerated (without energy recovery)	14,547	13,887	18,013	14,512	**17,773**
Landfilled	7,318	7,378	6,415	5,541	**4,259**
Other	2,870	2,635	2,430	2,890	**3,379**
Total[1]	72,599	72,426	73,930	75,500	**77,578**

[1] May not add up to total due to rounding.

In 2020, we managed approximately 77,578 metric tons of waste from our operations, a three percent increase from 2019. Of this total, 43,004 metric tons were hazardous waste.

Of the hazardous waste we generated in 2020, 57 percent was beneficially reused in some way (reused, recycled or sent for energy recovery), down from 58 percent in 2019. Approximately 20 percent of our hazardous waste was sent offsite for recycling and was either returned to us for reuse or sold to other industries. Another 36 percent was burned to generate power, up from 34 percent in 2019. Regarding the hazardous waste that could not be recycled or beneficially reused, 39 percent of the total hazardous waste generated was incinerated without energy recovery, up from 35 percent in 2019. Less than one percent was sent to hazardous-waste landfills.

We beneficially reused 80 percent of the 34,574 metric tons of non-hazardous waste we generated in 2020. We are evaluating and refining the programs currently in place at our manufacturing, research and office sites to reduce waste generation and increase recycling.

Approximately 48 percent of our facilities sent zero operational waste to landfill in 2020, up from 46 percent in 2019, and the percentage of waste sent to landfill dropped two percentage points, from 7 percent in 2019 to 5 percent in 2020.

We continue to work to identify alternate methods of waste management that will reduce the amount of waste sent to incinerators (without energy recovery) and landfills.

We do not collect data on the amount of product accepted for takeback, reuse or disposal.

For additional information on this topic, please review the following documents located on the ESG Policies & Resources page of Merck.com:

- Corporate Policy: Respect for EHS
- Public Policy Position Statement: Responsible Disposal of Medicines in the Household
- Sharps Management Plan-CalRecycle

Environmental compliance

GRI 307 Management approach

Protecting our people, our communities and the environment is fundamentally important to the way our company operates.

Our company strives every day to conduct business in a safe and environmentally responsible manner. We are committed to providing a safe and healthy workplace for our employees and to reducing the environmental impact of our operations around the world. Our core values are focused upon promoting the health and safety of our employees and respect for the environment. This is reflected in our Corporate Policy: Respect for EHS.

In addition to complying with all applicable country, regional, state, provincial and local safety and environmental laws, we strive for EHS performance that is among the best in the pharmaceutical industry.

We also adhere to the following key operating principles:

- Maintain a safe and healthy working environment for all employees, contractors and guests
- Foster a culture of EHS excellence that is built on science, integrity, accountability, personal responsibility, collaboration and active employee participation
- Seek to continuously improve our EHS systems, processes and standards
- Minimize our impact on the environment by identifying and implementing approaches to reduce the resources we use during the design, development and manufacture of our products
- Understand the potential hazards associated with our products and take action to minimize any potential risks or adverse impacts
- Promote EHS excellence in our supply chain by entering into business relationships with partners that share our commitment to responsible EHS stewardship

[1] Data for this section are captured in corporate managed data systems. Data from the Merck Animal Health Intelligence (MAHI) facilities, which were acquired in 2019 and thereafter, are not yet included. However, environmental NOVs and fines from these facilities are included in this section.

The Global Safety and Environment (GSE) department is responsible for the global EHS Management System which is based on the "Plan, Do, Check, Act" model. This enables us to assess and continually improve our practices over time. The model is implemented globally through a set of interwoven business processes that span the corporation:

- Our planning process includes developing goals, objectives and metrics based on a review of our company's performance, EHS programs, applicable regulations and external factors that may impact our business (PLAN)
- Activities are performed by using standards, guidelines and tools that are integrated into the EHS Management System and include specific expectations for sites and operating organizations (DO)
- Governance committees, from the executive-level EHS Council through site-based compliance committees, review business unit performance and progress against objectives throughout the year. EHS audits and self-assessments are also performed throughout the year (CHECK)
- Corrective actions and continuous-improvement initiatives are established to resolve EHS concerns that have surfaced during periodic assessments, audits and routine surveillance of the regulatory landscape. We track our corrective actions centrally to ensure proper oversight (ACT)

We have robust programs and initiatives to address global challenges and opportunities related to achievement of our short- and long-term environmental management and compliance objectives.

Training

Training is critical to building worldwide employee competencies that will improve compliance, reduce risks and drive continuous performance improvement.

We have a global standard that defines the EHS training expectations for employees in three categories:

- Manager training covers specific management responsibilities with regard to safety and environmental compliance and promoting a "safety first" culture

- EHS professional training designed to expand technical expertise and improve our EHS capabilities around the world
- Employee training covering the specific information our employees need to perform their jobs in a safe and environmentally compliant manner, focusing on hazards they encounter on the job and the corresponding control measures

Site EHS professionals complete an assessment of the activities performed at their sites and ensure that relevant topics are included in their site-specific training plans. They develop employee training curricula to comply with both regulatory and internal training requirements specific to their country. These training programs are updated when there are changes to our EHS Standards and/or applicable national, regional, state or local requirements, and are reviewed periodically to ensure that they remain current. Our EHS training program materials are available in both instructor-led and e-learning formats. We also conduct periodic web-based seminars to inform EHS professionals of changes in regulations, standards and company practices.

Recently, we developed a new e-learning course to build organizational awareness about Environmental Sustainability. The training's objective is to help employees understand how they might be able to promote

environmental sustainability in their role at the company. It defines the concept of environmental sustainability and then takes a closer look at what environmental sustainability means for business, our industry and our company.

EHS governance

Our commitment to the environment and employee health and safety begins with the company's Executive Team, which has established the corporate EHS Council.

The EHS Council comprises senior-level executives representing all business units, and is responsible for overall EHS governance, as well as for leading and driving enterprise-wide excellence in EHS management and performance. In 2020, the EHS Council formally met four times, with additional off-cycle communications as needed.

The Council's responsibilities include:

- Establishing EHS strategy, policy and business risk mitigation controls
- Ensuring cross-divisional engagement in the design and implementation of EHS business processes
- Sponsoring and implementing a sustainability strategy
- Monitoring the EHS performance of the company and establish continuous improvement targets
- Enhancing visibility and transparency of EHS risks, processes and issues

An EHS Standards Committee has been chartered by the Council to provide stewardship over our EHS Standards and enable business engagement in the development of new or revised Standards. Each area of the business is responsible for executing against these Standards, contributing to the development of programs, supporting internal audits and communicating significant EHS events. Divisional EHS compliance committees have also been established to manage, execute and resolve EHS issues as they arise.

The vice president (VP) of GSE is responsible for communicating to the company's Board of Directors, Executive Team and the EHS Council regarding progress on goals, objectives and metrics, as well as other material issues. In addition, the VP of GSE partners with business leaders to establish long- and short-term goals and performance metrics to drive EHS excellence.

Safety and environmental performance targets are included in divisional management objectives.

Learn more about corporate governance at our company in GRI 102-XX on pages XX–XX.

Our corporate EHS organization is responsible for:

- Developing corporate policies, procedures, guidelines, standards, tools and programs to set expectations and to support EHS compliance
- Providing technical and regulatory support to site-based EHS staff and operating organizations
- Managing and implementing an internal audit program charged with understanding the current state of compliance and identifying potential issues
- Tracking and communicating internal and external trends that should be addressed
- Anticipating, tracking and commenting on new regulations affecting our business and, where appropriate, developing plans to address them
- Tracking EHS performance of individual sites, divisions and the company as a whole, and communicating performance versus established targets

Our site-based safety and environmental professionals around the world support the EHS needs of their business areas, which include manufacturing, research operations, sales and administrative activities by:

- Ensuring that line management fully understands EHS requirements, including applicable regulations, permit requirements and company EHS Standards
- Establishing, assessing and improving programs
- Providing regulatory and technical support to employees and the operating areas
- Routinely assessing performance against our company standards, regulatory requirements and performance targets

- Acting as the primary liaison with local regulators and inspectors
- Investigating incidents and near-miss events to identify root causes and developing corrective and preventive actions to prevent recurrence

Internal auditing

We have a detailed and rigorous EHS audit program. Our global corporate EHS audit program is one way in which we identify and resolve compliance and performance issues within the company.

- Our audit leaders are full-time professional EHS auditors with extensive experience in auditing a broad range of EHS programs applicable to the company. The individual audit teams consist of EHS professionals with extensive site and subject-matter expertise. In many cases, particularly outside of the United States, our internal auditors work with independent consultants who have regulatory expertise in the laws of the host country.
- All audit findings are addressed through the development of corrective and preventive action plans (CAPA), which are reviewed, approved by the audit leader and regional EHS leader, and tracked to completion. This process includes senior management oversight.
- Findings from our audit program are communicated to appropriate parts of the organization so that learnings may be shared, and preventative actions can be taken.
- Audit performance and key program metrics are reviewed as part of our governance process.

We use multiple factors to determine the audit frequency of our facilities, including facility size, operational complexity, compliance status and performance history. Our most complex operations are audited every year, and all manufacturing and research operations are audited at least every three years. Less complex facilities, such as sales and business offices are audited less frequently. In 2020, we performed 13 corporate EHS audits of our facilities, involving 212 auditor days of remote review activities.

In 2020, the conventional EHS audit process was significantly interrupted by the COVID-19 pandemic, resulting in the creation of a remote audit methodology and procedure. Remote audits were then restarted in the 3rd quarter of 2020 using technology tools such as video conferencing, use of electronic document repositories and both real-time and recorded videography.

A recent survey by the National Association for Environmental, Health & Safety and Sustainability Management (NAEM) found that remote EHS auditing has increased since the onset of the pandemic for the companies responding to the survey. Most companies (68 percent) responded that they were currently piloting or conducting virtual audits in some capacity.[1]

Regular-internal Quality Assurance Reviews of the program are performed by Corporate Audit and Assurance Services at least every three years. The most recent review of the EHS auditing program was performed in March 2021, and resulted in a rating of “Effective,” with controls and practices deemed to be in line with company requirements and expectations.

In addition to our corporate EHS audit program, our sites regularly perform self-inspections, and review compliance with permit conditions, regulatory requirements and company EHS Standards, with all programs being evaluated at least once every three years.

[1] Sean Mason, Research Manager, NAEM, “The Emergence of Virtual EHS Audits”, NAEM Research, February 2021

Certification

Our company is certified in the Responsible Care® Management System Technical Specification RCMS Technical Specification is RC101.06, 2019. The RCMS® recertification occurred on December 4, 2019.

Additionally, our corporate EHS management system is generally aligned with the requirements of the International Standards Organization (ISO), but we do not pursue certification under the Environmental (ISO 14001) or Safety (ISO 45001) frameworks at the global level. Some of our facilities have individually achieved ISO 14001 certification to meet customer requirements.

Remediation

Environmental management practices have evolved significantly over the past 30 years.

With research and manufacturing operations dating back more than 100 years, some of our facilities operated at a time when there were few regulations and little understanding of good environmental practices. Because our company has responsibility for remediation of these sites, we have launched investigations, developed science-based remediation plans and implemented cleanup projects to protect the health and safety of our neighbors, communities, employees and the environment, and comply with all applicable requirements.

Over time, we have acquired properties and manufacturing facilities that may not have been subject to the same EHS management standards that we have in place today. We are also investigating and remediating those properties where necessary.

We spent $11.2 million in 2020 for remediation and environmental liabilities, including those at formerly owned and operated sites. Our company has an environmental liability reserve of approximately $60.6 million to fund the continued remediation of these sites into the future. In addition, we are a potentially responsible party at 16 multi-party Superfund sites in the U.S.

For additional information on this topic please review the following documents located on the ESG Policies & Resources page of Merck.com:

- Corporate Policy: Respect for EHS
- Public Policy Position Statement: Pharmaceuticals in the Environment
- Public Policy Position Statement: Responsible Disposal of Medicines in the Household
- Global Antimicrobial Resistance Action Plan

GRI 307-1 Non-compliance with environmental laws and regulations

Our centralized EHS information system allows us to collect, manage, learn from and share our safety and environmental performance data more efficiently.

We collect and analyze data in both leading and lagging metrics to look for potential trends and identify opportunities that can help drive performance improvement. We continuously explore new ways to learn from and report on our performance.

Safety and environmental performance targets are included in divisional management objectives. In addition, all employees are eligible for special recognition for innovative ideas and projects related to improving EHS aspects of our operations.

Notices of violations, fines and settlements

We report all forms of EHS compliance notices using the term Notices of Violation (NOVs), which includes citations, letters of warning and notices of noncompliance from environmental and safety-focused regulatory agencies.

In 2020, the company had 156 EHS-related regulatory agency inspections of our facilities around the world. We received three safety-related and nine environmental-related NOVs and paid $21,022 in fines in 2020.

Notices of violations (NOVs) and citations	2016	2017	2018	2019	2020
Environmental	12	5	6	9	**9**
Safety	2	3	1	4	**3**

Fines	2016	2017	2018	2019	2020
Environmental fines paid	$33,906	$0	$0	$17,690	**$21,022**
Number of environmental fines	2	0	0	3	**3**
Safety fines paid	$0	$0	$0	$0	**$0**
Number of safety fines	0	0	0	0	**0**

Supplier environmental assessment

GRI 308 Management approach

Environmental sustainability principles are integrated in each stage of our supplier management program. Our Global Supplier Management Group (GSMG) drives the program and maintains the associated standards and processes by which suppliers are identified, qualified and managed. The environmental sustainability program is integrated with social responsibility and economic inclusion and supplier diversity (EI&SD).

Please visit GRI 102-9 on page XX for additional information regarding our integrated approach with our suppliers.

External manufacturing

We understand that our external manufacturers pose a higher risk compared to most supplier categories. As a result, external manufacturers of active pharmaceutical ingredients and finished products are screened for EHS compliance, in addition to quality, supply and technical competence requirements. The EHS screening and onsite assessment is led by Global Safety and the Environment (GSE) and includes a survey covering such topics as regulatory compliance, fatalities and major incidents.

Based on the screening results and activities undertaken by the supplier, certain external manufacturers are subject to a more detailed onsite assessment conducted by a multidisciplinary team, which may include our company's Quality, GSE, Global Technical Operations and GSMG representatives.

The external manufacturers we contract with are periodically reassessed using a risk-based approach; higher-risk external manufacturers are subject to more frequent onsite assessments. We expect that observations made during the audit process will be remediated by our external manufacturers, and we monitor and track corrective actions through completion.

The 2020 schedule was impacted by the COVID-19 pandemic. Our priority was given to new supplier reviews (due diligence) versus current supplier reviews, in our support of the supply chain. Whenever possible, assessments were completed in person. However, some assessments were completely virtual or a combination thereof.

PSCI Environment Task Team

Our company co-leads the PSCI Environment Task Team and works together with GSE and peer organizations to develop supplier survey(s), training, tools and maturity modeling.

Since 2016, this team has been working together to standardize their environmental supplier data request to reduce the different requests to suppliers and minimize data fatigue. The survey covers greenhouse gas emissions, energy, waste and water, and is in four sections:

- Established program: alignment with the Code of Conduct
- Manage impact: data for each environmental indicator
- Reduce emissions: environmental targets
- Apportion emissions: supplier emissions that are specific to our company

In 2020, we updated the survey to include questions related to science-based targets (SBT) for greenhouse gas emissions reductions. Please see the following table for the 2020 survey response rate.

In addition to the survey, below are a few examples of additional items completed by the Environment Team in 2020:

- 10 environmental sustainability guides
- 14 responsible sourcing guides for key materials
- Responsible Sourcing of Raw Materials training
- Sustainable Packaging training
- Revised PSCI Principles training

We worked with PSCI to provide environmental training to our suppliers. These initiatives ensure a consistent message and approach with our suppliers across the industry. Working together with PSCI, we provide these tools and resources on PSCI's platform and in webinars. We also provide these tools for our employees on an internal GSMG webpage.

External manufacturing EHS assessments	2016	2017	2018	2019	2020
Prospective external manufacturers	34	37	65	43	**50**
Current external manufacturers	85	53	61	48	**27**
Total	119	90	126	91	**77**

PSCI environmental metrics	2017	2018	2019	2020
Supplier personnel trained in environmental topics[1]	N/A	N/A	N/A	**885**
Environmental Survey response rate	87%	96%	96%	**96%**

[1] Formal training was created in 2020 and conducted as a joint effort with PSCI.

Social

See GRI index on page XX.

Employment

GRI 401 Management approach

We recognize that our ability to excel depends on the integrity, knowledge, imagination, skill, diversity and teamwork of our employees.

A positive, inclusive and high-performing work environment is essential for employees to feel welcomed and valued, and to fully achieve their business objectives.

Harnessing the knowledge and insights of a globally diverse workforce requires leadership, a corporate culture of respect and full engagement, and a thoughtful and strategic approach to workplace inclusion and employee development and wellbeing—physical, emotional, social and financial.

We value global diversity and inclusion at every level of the organization and strive for inclusiveness in every aspect of work.

We are:

- Committed to fostering development and rewarding talent
- Dedicated to diversity and inclusion at every level of the organization
- Adept at recognizing unique skill sets and nurturing employees' talents

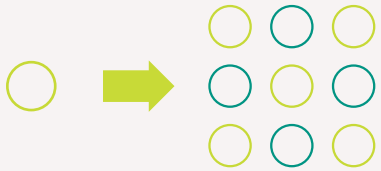
Throughout 2020, we invested in programs to drive positive cultural and talent changes at our company. Our values represent the very core of our character and they guide every decision and action we take.

At the same time, we recognize that we must continue evolving our culture and ways of working to fortify the company's future and truly achieve our vision of becoming the premier biopharmaceutical company. To that end, we embarked on a collaborative effort to create the behavioral and mindset shifts needed for our company's future. As part of this initiative, we asked our employees to join us in writing the next chapter for our company. Ways of Working is the name of the journey to transform our company culture and create a working environment that is stimulating and motivating, to get the best out of our Talent.

Behavioral and mindset shift

The cultural transformation journey encompassed by Ways of Working builds on the foundation of our values above, but encourages colleagues to engage in five behavioral and mindset shifts:

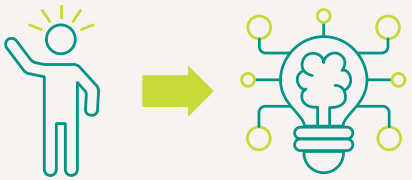
From **Silos** to **Networks**



Build partnerships, break down barriers, and collaborate across the enterprise in a positive way.

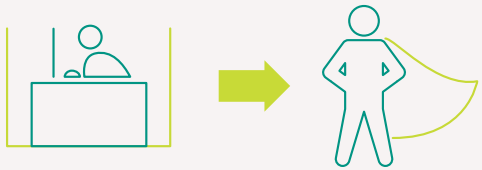
Engage and align multiple internal and external stakeholders toward a common goal.

From **Knowing** to Learning



Challenge ourselves by continuously learning from other people, industries and organizations. Foster a culture of curiosity, discovery, and openness to new ideas.

From **Controlling** to **Empowering**



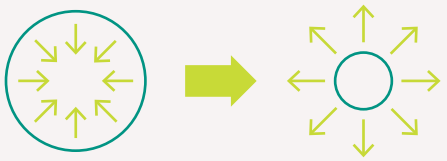
Foster an environment of autonomy at all levels of the organization.

Appropriately put decision rights where they belong regardless of hierarchy and allow for innovation.

From **Planning** to **Experimentation**

Make effective and rapid decisions for the business based on incomplete information or without being certain of the outcome. Experiment with courageous new ideas, approaches and improvements to current process. Accountable for extracting lessons learned from failures and mistakes.

From **Withholding** to **Sharing**



Proactively collaborate in cross functional teams to share capabilities, ideas, resources, and innovation.

Lead change by being candid and sharing critical information that people need to know to perform their best.

At the end of 2020, the Ways of Working culture journey was well underway: more than 29,000 employees had accessed the internal Ways of Working social media site. Approximately 16,000 employees completed a self-assessment on the Ways of Working as an initial exploration of where they were on the journey. Colleagues were also using our internal recognition platform, INSPIRE, to recognize others in their Ways of Working journey: more than 300,000 recognitions were made in the platform to celebrate how one of those five Ways of Working were being demonstrated.

The COVID-19 pandemic created a high degree of disruption to our work and personal lives. Our company's grassroots adoption of the Ways of Working provided a means for employees to not only manage but thrive amidst the challenges around them. Employees posted examples from the five Ways of Working on several company channels to highlight the changes that made the greatest impact on them:

Adopting new technology

By engaging in *Experimentation*, *Learning*, and *Sharing*, teams around the world were able to quickly adopt technologies that allowed them to do their work. These technologies including videoconferencing applications, virtual whiteboards, polling and podcasting tools, and cloud-based productivity suites.

Changing collaboration

Realizing the risk of feeling disconnected while working from home, employees rapidly shifted to go from *Silos to Networks* by using the different channels of the Ways of Working to *share* stories about how to cope and be productive at working from home. In a matter of weeks, teams around the world shifted learning programs, physician forums, and key customer meetings to virtual formats over more appropriate periods of time. Virtual events and summits became the new normal.

Enabling inclusion

Working from home involved going *from withholding to sharing* more of people's personal side. Success stories about how people brought their whole selves (as well as their families and pets) to work contributed to a greater sense of inclusion and belonging.

As some parts of the world began preparing for a return to the workplace, the *learning and networks* inherent in the Ways of Working allowed practices like office-booking applications to be *shared* for those seeking support. At a time of great disruption, employees went *from controlling to empowering* to create solutions that allowed them to be successful in their own unique ways.

For more information on our initiatives, policies and accomplishments, please visit https://www.msd.com/company-overview/culture-and-values/

GRI 401-1	New employee hires and turnover
SASB 330a.1	Talent recruitment and retention efforts for R&D personnel
SASB 330a.2	Voluntary and involuntary turnover rate for: executives and senior managers, midlevel managers, professionals and all others

2020 Turnover (global)

Overall turnover rate[1]	Voluntary turnover rate
8.5%	5.9%

[1]Includes all types of turnover of regular employees.

Turnover by division (2020)	Overall turnover rate[1]	Voluntary turnover rate
Animal Health	7.1%	4.6%
Corp Compliance	5.1%	3.0%
Global Services	5.5%	4.4%
Global Human Health	14.4%	9.0%
Human Resources	7.8%	5.7%
Legal, Security, Safety & Environment	6.2%	5.3%
Manufacturing Division	5.3%	3.8%
Research Laboratories	6.7%	5.5%
Strategic Communications, Global Public Policy & Public Health	5.0%	2.5%

[1]Includes all types of turnover, including restructuring.

Turnover by region (2020)	Overall turnover rate[1]	Voluntary turnover rate
Asia Pacific	8.1%	6.8%
Latin America	8.9%	3.1%
EEMEA	8.9%	6.1%
Japan	11.4%	2.1%
Europe	6.9%	3.6%
U.S.	5.8%	4.9%
China	22.3%	19.3%
Canada	10.1%	9.1%

[1]Includes all types of turnover, including restructuring.

Turnover distribution by gender and region (2020)	Female	Male
Overall	47%	53%
Asia Pacific	50%	50%
EEMEA	59%	41%
Latin America	39%	61%
Europe	49%	51%
Japan	18%	82%
U.S.	47%	53%
China	51%	49%
Canada	49%	51%

Employee hires by region	2016	2017	2018	2019	2020
Asia Pacific[2]					
Number of hires	1,732	1,909	3,071	2,727	**597**
Hire rate[1]	14.8%	16.1%	24.4%	20.8%	**8.9%**
EEMEA					
Number of hires	382	378	505	605	**360**
Hire rate[1]	13.5%	13.7%	16.7%	18.8%	**10.7%**
Latin America					
Number of hires	380	1,246	714	558	**459**
Hire rate[1]	8.0%	23.8%	13.1%	10.5%	**8.4%**
Europe and Canada[3]					
Number of hires	1,636	1,865	2,495	2,624	**1,754**
Hire rate[1]	8.9%	9.8%	12.3%	12.3%	**8.4%**
Japan					
Number of hires	196	109	153	121	**143**
Hire rate[1]	5.0%	2.8%	4.3%	3.4%	**4.4%**
U.S.					
Number of hires	1,937	2,173	3,019	2,654	**3,193**
Hire rate[1]	8.3%	9.1%	12.4%	10.5%	**11.9%**
China					
Number of hires	NR	NR	NR	NR	**2,149**
Hire rate[1]	NR	NR	NR	NR	**29.5%**
Canada					
Number of hires	NR	NR	NR	NR	**50**
Hire rate[1]	NR	NR	NR	NR	**7.5%**

NR: Not reported
[1]Percentage of new hires in the total onboard head count; regular employees only.
[2]2020 data excludes China. Separate reporting for China began in 2020.
[3]2020 data excludes Canada. Separate reporting for Canada began in 2020.

We use a comprehensive approach to ensure recruiting, retention and leadership development goals are systematically executed throughout the company. We hire talented leaders to achieve improved gender parity and representation across all dimensions of diversity. We provide training to our managers and external recruiting organizations on strategies to mitigate unconscious bias in the candidate selection and hiring process. In addition, we utilize a comprehensive communications strategy, marketing outreach, social media and strategic alliance partnerships to reach a broad pool of talent in our critical business areas.

2020 was a highly unusual year due to the global pandemic. Turnover was lower in most markets, which may reflect employees not making job changes in such an uncertain environment for personal health and economic concerns.

Our hiring practices pivoted seamlessly to almost all virtual. Hiring did slow down in most ex-U.S. markets consistent with lower turnover rates. But in the U.S., our highest volume hiring market, hiring increased in 2020 versus 2019 by 20 percent, largely due to growth and investment in our U.S. Manufacturing division plants and the expansion of clinical trials in our Research & Development division.

China is another market that remained on pace with hiring in 2020, to support the growth strategy in that market in Oncology and Vaccines across Human Health and in our Research & Development division. While some companies across the pharmaceutical industry may have scaled back their hiring in 2020 as a result of the pandemic, we continued to move forward on hiring plans to fulfill our strategic growth plans. We were successful at attracting and securing talent during a highly unusual year and significantly increased our focus on creating a diverse workforce through our sourcing, branding and selection processes.

GRI 401-2 Benefits provided to full-time employees

We recognize that our employees are vital to the company's mission of improving and saving lives around the world. One way we recognize the importance of our people is to provide a valuable suite of programs and resources that support professional achievement and personal wellbeing at every stage of life.

Our benefits and wellbeing programs are designed using guiding principles that focus on consumer experience, a core set of programs for everyone and flexible offerings to support our diverse workforce, financial stability for both our company and our employees, and providing high-quality programs that reflect our business, values and culture.

Health and wellbeing

Employees across the world enjoy comprehensive health coverage, which varies by region and country, and are also provided access to our comprehensive wellbeing initiative called Live it. Through Live it, our employees can utilize a wide variety of programs and resources that are focused on prevention, physical health, nutrition and mental health.

In the U.S., we generally offer health, life, disability and business travel insurance as well as retirement income benefits to all employees. Employees also can opt to contribute to tax-free flexible spending accounts for reimbursement of certain health spending and/or dependent care costs.

Outside the U.S., while benefits may vary by region and country, we offer health, life and injury, disability and business travel insurance, along with retirement income benefits. In addition to covering employees' eligible dependents, in the U.S. and many countries (subject to local law) we extend health care and various insurance benefits to employees' domestic partners and their partners' eligible dependent children.

To review our Wellbeing Report, please visit Merck.com.

Health advocacy (U.S.)

Within the U.S., our medical plan helps support our members with an advocacy solution, which is designed to help employees and their families navigate the health care and health insurance system. The program is designed to make employees' lives easier by saving hours of effort, with activities such as:

- Helping to resolve complicated medical and dental insurance claims
- Finding doctors, providers and facilities
- Scheduling appointments for physicians, treatments and tests
- Securing expert second opinions
- Connecting with fertility advocacy
- Getting cost estimates for medical procedures
- Assisting in the transfer of medical records
- Researching and locating the latest treatments
- Managing complex or chronic conditions with clinical experts

Commitment to mental health

Every employee and their household members have access to our global Employee Assistance Program, which provides:

- In-the-moment telephone support for daily relationship challenges, work issues and everyday stress
- Professional counselling sessions
- Work-life services for everyday help and everyday needs, such as finding assisted living for aging parent or support with childcare services
- Crisis support for unanticipated events

Our company provides a wide variety of resources to all employees such as mental health awareness training, webcasts by world-class speakers on important topics such as resilience, men's mental health and happiness, live and recorded exercise classes, mindfulness sessions, and a network of mental-health champions that provide local support.

Other programs to support wellbeing (U.S.)

Our company offers many programs to help make it easier for employees to balance their various responsibilities. The following is a non-exhaustive sampling:

- Caregiving support
- Transportation services
- Backup dependent care
- Childcare support
- K–12 educational guidance
- Special-needs counseling
- Adoption and surrogacy assistance
- High-quality mental health network
- Fast access to high-quality cancer care
- Employee assistance and work-life services program
- Summer hours
- Paid parental time off (12-week minimum)
- Disaster relief benefits
- Breastmilk shipping
- Tobacco-free policy

How we have helped employees through COVID-19

During the pandemic, we updated and added programs to assist employees and their families with the many challenges resulting from COVID-19.

Outside the U.S., we support 100 percent coverage of COVID-19-related testing, diagnosis and treatment, as well as paid leave during quarantine.

In the U.S., we offer:

- 100 percent coverage for testing, diagnoses and treatment of COVID-19 and telemedicine for any reason through the medical plan
- Onsite daycare center with expanded safety protocols
- Regular and backup childcare
- Remote tutoring
- Caregiving coordinator for employees and their loved ones
- Flexible Spending Account updates (e.g., allow rollovers and mid-year changes)
- Free online fitness classes
- High-quality mental health provider network
- Mental health training for managers and employees
- Cares Act 401(k) withdrawals
- Expanded vacation carryover

Financial security

Worldwide, our company offers core and ancillary financial security and retirement benefits that routinely rank amongst the most valuable and progressive of other large multinational corporations.

Outside the U.S., we have more than 80 pension plans (including defined benefit, cash balance, and defined contribution plans) in over 40 countries. These plans often supplement government-sponsored social security pension benefits to improve employees' financial security through added retirement income.

In the U.S., we offer a defined benefit pension plan as well as a 401(k) plan with company matching contributions. U.S.-based employees who are at least age 55, and those who have at least ten years of service after age 40, are eligible for subsidized medical benefits at retirement.

Also in the U.S., we offer:

- Comprehensive financial planning through Ernst & Young (EY), a valuable benefit provided to employees at no cost to them, which offers assistance with budgeting, saving, investing, estate and tax planning, as well as help selecting benefit options and other financial planning guidance
- Educational assistance, which provides financial support for higher education
- Access to student loan consolidation and refinancing options
- Banking through our company's credit union, which offers competitive interest rates on savings accounts and lending

Employees and compensation	2016	2017	2018	2019	2020
Total compensation paid to employees/payroll, including benefits (in billions)	$7.77	$8.65	$8.98	$9.56	**$10.18**

Global flexible work arrangements

We believe flexible work arrangements offer a different way of working and have the potential to enhance employees' commitment to the company, foster teamwork, increase productivity and support work-life effectiveness. The company has had a global flexible work arrangement policy since 2008.

In developing our global flexible work arrangement policy, we've challenged traditional assumptions about where and how work can and must be done. Flexibility reflects our belief that job effectiveness is determined by employee performance and results, not by the number of hours one is seen in the office. What is produced or accomplished is more important than when or where the work is done.

Time off and leave policies

For employees outside the U.S., time off and leave benefits are based on local laws and market practices. We recently began implementing global paid parental time off with a **12-week minimum**.

For U.S.-based employees not subject to a collective bargaining agreement, we offer paid time off, leaves of absence and other benefits to help employees manage work-life issues. For U.S.-based employees who are subject to a collective bargaining agreement, time off and leave benefits are offered in accordance with the collective bargaining agreement.

Disclaimer: Benefits vary based on region and country, employee group and status, collective bargaining agreements and local legal requirements.

Employee volunteering

Each year, our employees around the world take an active role in giving back to their communities by donating thousands of volunteer hours to help improve health and wellbeing through a range of volunteer activities. However, the COVID-19 pandemic impacted the total number of hours volunteered as employees were unable to participate in traditional, in-person volunteering and the MSD Fellowship for Global Health was paused in 2020.

MSD Fellowship for Global Health

Our mission to save and improve lives underpins the idea behind the MSD Fellowship for Global Health.

Global paid parental time off

with a 12-week minimum

The MSD Fellowship for Global Health is a three-month, corporate pro bono program designed to leverage the skills and talents of our employees worldwide. The company continually seeks innovative ways to increase access to health around the world while also growing and developing our talent. The MSD Fellowship for Global Health is one way that we can accomplish both objectives. Due to the COVID-19 pandemic, we paused the Fellowship program in 2020. However, the program has returned in 2021 as a virtual opportunity.

Learn more about how our Fellows are helping communities.

From website. Need HIRES
https://www.merck.co-m/stories/nurse-and-vounteer-brenda-fisher-lends-medical-expertise-to-houston-food-bank-during-covid-19/

2,600+ hours
of pro bono legal services in 2020

1,224 hours
volunteered through COVID-19 medical volunteering program in 2020

Skills-based volunteer program

Our skills-based volunteer program offers employees the opportunity to donate their professional skills through virtual, short-term projects that provide important capacity-building support for nonprofit organizations. The program expands opportunities for employees to grow and develop, while giving back to the community.

Pro bono legal program

Our company's pro bono legal program has been serving the poor and disadvantaged for 26 years and is led by our Legal department. The program provides opportunities for our legal professionals to provide their expertise, free of charge, to members of the community that would otherwise be unable to access legal advice on a range of issues including family law, veterans' affairs, child advocacy and others. Throughout 2020, attorneys, paralegals and administrative associates provided more than 2,600 hours of pro bono legal services.

Medical volunteering – COVID -19

In response to the pandemic, our company changed its volunteer policy to support employees with medical backgrounds. Recognizing the need for additional health care professionals, including doctors, nurses and medical laboratory technicians, to assist in regions where COVID-19 had spread, we removed the cap of 40 hours of paid time off to volunteer for these individuals. In the U.S. for example, employees with a medical background reported volunteering 1,224 hours in 2020. In 2021, we will continue this policy.

Employee giving summary volunteering[1]	2016	2017	2018	2019	2020
Employees who volunteered [2]	16,446	6,560	6,557	14,395	**985**
Employees who used paid time off (PTO) [3]	14,376	4,870	4,795	7,301	**411**
Total recorded volunteer hours (TRVH) [1]	214,862	114,903	114,393	136,014	**46,279**
Skilled volunteer hours [4]	16,726	19,468	18,317	19,907	**3,977**

[1] The Employee Giving Summary table has been simplified to reflect data that is most meaningful to stakeholders and reflects the performance of our company's volunteering initiatives.
[2] 2020 figures are based on employee self-recorded volunteer hours and volunteer hours communicated directly to the Office of Social Business Innovation for certain countries.
[3] Figures based on estimated data.
[4] Figure includes aggregate reported hours from our major skills-based volunteer initiatives – the MSD Fellowship for Global Health, SkillShare and Pro Bono Legal program. It also includes hours recorded for U.S. employees with a health care background that volunteered to assist with the COVID-19 pandemic.

GRI 401-3 Parental leave

We ensure that employees receive a global minimum standard of up to 12 weeks of paid parental time off for employees who become parents through the birth, adoption or surrogacy of a child regardless of the employee's sex, marital status, sexual orientation or gender identity.

In addition to parental leave, U.S. employees receive separate, paid, unpaid and job-protected leave to care for a newborn child, adopted child or child placed in foster care following the child's birth, adoption or foster-care placement.

Occupational health & safety

GRI 403 Management approach

Management approach

As a global health care company, we strive to provide a safe and healthy workplace.

We seek to eliminate work-related injuries, illnesses and unplanned events from all aspects of our operations through comprehensive safety programs that are part of our EHS.

Each year, we set targets for leading and lagging safety metrics, including safety observations, near-miss reporting, peer safety audits, recordable injury rates and days away, and reassignment or transferred (DART) rate.

Please see GRI 403-9 on page XX for performance on all metrics.

Everyone who works at our sites (i.e., all employees, and non-employees such as partners and contracted workers) must follow the standards and requirements of our EHS management system or have equivalent programs. Compliance with these requirements is measured through the site audit processes for employees and non-employees, and through peer reviews for construction.

Information on our management approach to occupational health and safety, specifically our key operating principles, EHS governance, internal auditing and certification is included in GRI 307 on page XX. For more information regarding the occupational health and safety expectations in our value chain please refer to our Business Partner Code of Conduct.

International standards

We are committed to providing a safe and healthy workplace for our employees and contractors, and to complying with all applicable safety laws and regulations. In addition, we aim for EHS performance that is among the best in the pharmaceutical industry.

Our company has processes in place that are consistent with the International Labour Office (ILO) Code of Practice on Recording and Notification of Occupational Accidents and Diseases (the Code) where governments have adopted the Code. In countries that have not adopted the Code, we report to governments as required by applicable law.

For consistency across the company, and to enable us to compare our injury rates with those of other multinational companies, we use the U.S.-based OSHA record-keeping criteria for recording and tracking work-related injuries and illnesses. We require all injuries, illnesses and incidents involving our employees to be reported and investigated to determine their cause. We also require actions be taken to prevent recurrence.

We have reviewed the ISO 18001 Standard but have not pursued certification at the corporate level because we believe that our current EHS management systems are robust and will help us to drive continuous improvement in our EHS programs and achieve our desired levels of EHS performance.

GRI 403-1 Occupational health and safety management system

We seek to eliminate work-related injuries, illnesses and unplanned events from our operations through comprehensive safety programs that are part of our EHS management system. We also work to minimize the frequency and severity of safety and environmental incidents by focusing on proper facility design, process controls, operation and maintenance procedures, protection systems and emergency-response capabilities.

Our global safety program is designed to drive a proactive safety culture and reinforce the link between our leadership behaviors and our safety and environmental objectives. We believe that through visible management, leadership and employee engagement, we can increase the awareness of hazards and help employees make the right choices when it comes to safety, health and the environment — both on and off the job.

We address the following areas in our approach to employee and contractor safety, which are discussed in more detail in GRI 403-2 on page XX and GRI 403-3 on page XX:

Process safety (403-2)

Non-routine hazardous work (403-2)

Capital projects construction safety (403-2)

Safety for non-company personnel (403-2)

Motor-vehicle safety (403-2)

Emergency preparedness and response (403-2)

Loss prevention (403-2)

Industrial hygiene (403-3)

Biological safety (403-3)

Ergonomics (403-3)

For information on our Global Safety and Environment (GSE) EHS Management System, please visit GRI 307 on page XX.

GRI 403-2 Hazard identification, risk assessment, and incident investigation

We work to minimize the frequency and severity of safety and environmental incidents by focusing on proper facility design, process controls, operation and maintenance procedures, protection systems and emergency response capabilities.

Our global safety program is designed to drive a proactive safety culture and reinforce the link between our leadership behaviors and our safety and environmental objectives. We believe that through visible management, leadership and employee engagement, we can increase the awareness of hazards and help employees make the right choices when it comes to safety, health and the environment — both on and off the job. One example of leadership and employee engagement is our active safety committees that drive program implementation and address safety issues collaboratively between management and employees.

Our injury and illness data are consolidated into a central system, enabling us to analyze trends and focus our efforts to continually improve. We communicate significant incidents, near-miss events and workplace conditions that could represent risks to our operations and sites around the world. We also proactively share corrective and preventive actions across our operating locations to allow all sites to learn from the improvements we make.

Process safety

Our process safety program identifies and controls risks associated with manufacturing our human and animal health products. The program applies not only to operations that are subject to process safety regulations, but also to our pilot plants, manufacturing operations and utility areas where process hazards may exist. In addition, we have implemented a structured chemical-reaction-hazard review program for our research laboratories.

In the early stages of product development, we conduct chemical reaction and thermal testing of our intermediate materials and products to identify potential reactivity, fire and explosion hazards and environmental risks. This testing continues throughout each product's life cycle to assure that we are aware of and

can appropriately manage process risks. Global process safety professionals work with operations and engineering personnel to conduct process hazard analyses and hazard and operability studies to thoroughly evaluate our operations. These structured reviews take place during process design, initial start-up and throughout the life of the process to ensure that our facility design, equipment, operating controls and maintenance procedures are effective in controlling process-related hazards.

Non-routine hazardous work

In recognition of industrial safety trends and our own internal assessments, we have refined our global approach to managing safety during non-routine maintenance and repair activities, as these work activities are a leading cause of serious and fatal injuries across industries. We have developed global safety standards to minimize the potential for serious incidents when our employees are working at heights, entering confined spaces and working on or near machinery, piping and electrical systems. This global effort is focused on creating a rigorous, error-free and safe approach to performing these non-routine high-hazard work activities.

Capital projects construction safety

We have a strong construction safety program with a focus on zero harm to people, property and the environment. Our Global Engineering Solutions (GES) group oversees hundreds of contractors and thousands of skilled craftworkers on our construction projects worldwide. Safety is integrated into all stages of our construction projects, beginning with the concept and design phases and carried through to detailed design and construction.

Our construction safety program mandates pre-job planning, hazard assessments and daily safety audits. We also conduct monthly peer reviews by bringing together in-house engineers, contractors, EHS and other partners to conduct thorough project safety evaluations and sharing of best practices. We completed 78 peer safety reviews in 2020, covering 91 percent of our active projects.

Within the last two years the construction industry has seen a negative trend related to availability of contractor and craft resources. The impacts of this trend are management of resource availability issues, varied levels of experience, and safety competencies.

GES uses a hyper-care program adding additional supervision and safety oversight to new contractors, high risk work scope contractors and less experienced contractor craft.

Additionally, GES uses a rigorous pre-qualification program through ConstructSecure (external prequalification service/program) to evaluate, score and prequalify every contractor and subcontractor. ConstructSecure evaluates contractor safety programs, past performance, incident rates, experience modifier rate (EMR), training verification of craft and reviews any regulatory citations prior to allowing them to bid on any projects.

Safety for non-company personnel

We frequently work with integrated facility management (IFM) partners whose employees perform work at our sites. Current IFM partners were selected at the global level following a detailed sourcing process and are managed through a specific governance process. The governance process includes dedicated company EHS oversight that measures, monitors and evaluates IFM partner EHS performance and adherence to company EHS requirements on an ongoing basis, including through the IFM partners' scorecard.

These IFM partners are required to follow our company's EHS standards and site level procedures. They are required to identify and monitor compliance activities associated with their scope of services and meet safety-related performance objectives.

Our IFM partners pre-qualify the contractors that they use at our sites, ensure those contractors are trained, perform EHS inspections and monitor EHS performance.

IFM partners proactively follow a continuous improvement process whereby each year, on top of our company requirements, additional targets are set up and monitored at the governance level.

Contractors working at our sites that are not managed by our IFM partners are pre-qualified using the same process as our embedded contractors, including verification of safety training. These contractors are assigned internal company liaisons who monitor safety and environmental compliance, perform observations of their work and verify that necessary corrective actions are taken.

All above referenced contractors are required to report and investigate all incidents and near-miss events. They also work with site based EHS contacts to identify and implement corrective and preventive actions, which are tracked to completion. Contractors are monitored for compliance with all EHS requirements.

Motor vehicle safety

The aim of our motor vehicle safety program is to promote a strong safety culture for our employees who operate vehicles while conducting company business. Our program is designed to reduce the frequency and severity of motor vehicle injuries and reduce the number of collisions, violations and vehicle-related incidents across our global network. We have implemented a global motor vehicle safety standard and adopted programs, such as telematics that provide real-time continuous feedback, to support safe driving skills and behaviors of our sales and marketing employees who operate the majority of our business-use vehicles.

Risk management

Emergency preparedness and response

We prioritize the prevention of incidents through equipment and facility design, operational and maintenance procedures and employee training. Because we recognize that incidents can still occur, our EHS standards require emergency preparedness and response capabilities at all of our facilities worldwide.

Our priorities for emergency response include:

- Ensuring the safety and wellbeing of our employees
- Preserving the environment and nearby communities
- Protecting our physical assets

Site-specific emergency-response procedures include incident reporting and management, personnel evacuation, medical/first-aid response and incident response and control. We routinely conduct emergency response drills and train employees in both job- and site-specific emergency-response duties.

We conduct pre-emergency planning for credible emergency scenarios such as process upsets, fires, spills, releases, severe weather and security-related incidents.

Many of our manufacturing plants have trained emergency response teams, and mobile fire and rescue apparatus that can respond to onsite fires, medical emergencies, technical rescues and spills/releases. Most of our emergency response teams interact directly with their local community-based emergency responders, and in some cases, assist off-site when requested.

Processes for workers to report work-related hazards and hazardous situations, investigate work-related incidents and determine corrective actions and improvements needed in the occupational health and safety management system are included in EHS emergency preparedness and response and incident investigation standards and training. These standards also include information on how employees are protected against reprisal.

Loss prevention

Protecting our people, facilities, production processes and product supply chains from threats such as natural catastrophes (i.e. hurricanes, floods, windstorms and earthquakes) and fires is critical to ensuring that our products reach our customers when needed. We proactively assess and manage these risks at our facilities and at several of our strategic third-party manufacturers and warehouse providers.

Our loss-prevention program focuses on eliminating or reducing the impact of potential loss events by:

- Providing appropriate facility and process designs
- Implementing inspection, prevention and maintenance procedures
- Installing fire suppression, detection and specialized protection systems
- Executing emergency response and business continuity programs

We also engage the services of globally recognized loss prevention engineering service providers to routinely inspect facilities and review new designs and facility modifications. This helps us to maintain a high standard of loss prevention that corresponds to the level of operational risk, monetary value and supply-chain importance.

GRI 403-3 Occupational health services

Occupational health principles apply to all employees and directly supervised contingent workers at all levels, and across all divisions in the company. We promote compliance with both the letter and the spirit of applicable occupational health laws, company policies and requirements. We prioritize continuous improvement and assess our improvements objectively through internal measurement, external benchmarking, incorporating best practices and participating in occupational health research where appropriate.

To meet the company's objectives, we focus on eight key areas:

- Health quality and productivity
- Prevention and risk minimization
- Performance management
- Global standards and communication
- Education and training
- Management
- Safety
- Global employee health.

Health quality and productivity

Our employees are our most valuable asset, and we commit every day to preserving their health. We assign employees only to jobs that they are physically able to perform. When employees become ill or injured, we support their recovery so they can return to work as soon as they are medically able to perform their jobs. When an employee experiences an occupational injury or illness, we promote and facilitate appropriate treatment and rehabilitation.

Prevention and risk minimization

Reducing risk and preventing illnesses and injuries are the best ways to maintain the occupational health of our employees. We collaborate closely with Global Safety and the Environment organization to identify and evaluate potential impacts of our operations on the health of our employees to reduce adverse impacts. We take proactive steps to prevent occupational injury and illness through our Medical Surveillance program. This program evaluates new and existing workplace hazards and develops and implements procedures and clinical protocols to eliminate them and prevent future occurrences. In the event of an occupational injury or illness, we perform joint follow-up investigations with Global Safety and the Environment and conduct analyses to further refine our preventive efforts and reduce avoidable risks.

Performance management

Our occupational health programs are not static, and we drive continuous improvement in their performance. We establish programs, policies and procedures that tie our occupational health performance to corporate and divisional goals and objectives. We regularly report our progress against our goals to management and refine them as necessary at regular intervals.

Global standards and communication

We adhere to and promote company goals, programs, procedures and policies designed to provide a high level of respect for the health of our employees globally. In communication, we foster openness and respectful dialogue with our employees, anticipating and responding to concerns about our operations.

Education and training

Well-informed and trained employees provide the backbone for maintaining employee health in the workplace. We assist in providing appropriate education and training programs for our employees, so they understand potential health hazards and necessary precautions related to their job duties. To achieve this effectively, we invest in our occupational health team's professional growth to foster business excellence in conscientious execution of their responsibilities.

Management

Leaders of employees or managers of other resources are responsible for implementing and adhering to local and regional occupational health policies. They may also provide input into Global Employee Occupational Health policy and strategies that promote the company's occupational health leadership in accordance with our mission and values. Similarly, we expect division and business unit leaders to make sure their teams provide input to occupational health strategies, policies, and programs, as appropriate. Above all, they make sure their organization provides adequate resources to support and track occupational health performance.

Safety

Global Safety and the Environment provides input into Global Employee Occupational Health policy and strategies that promote the company's occupational health leadership in accordance with our mission and values. Activities include development and implementation of Occupational Health Programs, assessing potential workplace health hazards (chemical, biological and physical), preventing adverse health effects from hazards, evaluating employees' ability to perform job tasks, identifying causal factors associated with injuries and illnesses, and working with site health professionals to track the safety performance of the company.

Global employee health

The Executive Vice President of Human Resources is the senior company official who advises the Executive Team on occupational health strategies, policies and programs, and reports to the committee on occupational health matters that impact employee health and human performance. Together, this position and the Vice President of Global Safety and the Environment promotes effective collaboration on occupational health and safety matters. Their mission is to achieve the company's occupational goals and other relevant safety policies, and to provide expert, subject matter advice to management.

Global Health CoE

Our Global Health CoE includes our company's industrial hygiene, biological safety, and ergonomics programs. By integrating these disciplines into a single organization, the company more effectively manages worker safety and promotes employee health. The Global Health CoE improves worker safety and employee health by focusing on four vital areas:

- Governance
- Risk management
- Implementation and operation
- Program management

Through the Global Health CoE, we protect employees, customers, vendors, partners, and neighboring communities by identifying chemical, physical, and biological hazards and assessing and properly controlling risks. By systematically maintaining rigorous attention to sustainable risk management principles and controls, we protect our stakeholders worldwide, enabling the organization to focus on discovering, developing, and providing innovative products and services that save and improve human and animal lives around the world.

To accomplish this, we require and expect our stakeholders, executive team, and ourselves to anticipate hazards, evaluate risks, and provide effective and sustainable solutions to control both.

Industrial hygiene

Our industrial hygiene program protects employee health throughout all stages of research and manufacturing. Our professionals identify chemical, physical, and biological hazards to assess exposures and control risks.

Based on industry-leading best practices, we accomplish this through a hierarchy of controls.

These are:

1. Prevention
2. Substitution
3. Engineering
4. Administrative
5. Personal protective equipment (PPE)

For example, when designing new processes and facilities, we build safety into our designs organically, by eliminating risks, substituting less hazardous processes or materials, and installing effective engineering and operational controls. We also confirm the ongoing effectiveness of these controls after installation through a robust monitoring program.

When addressing existing processes and facilities, we use a similar approach. First, we seek to eliminate hazardous materials and processes. When not possible, we use less hazardous substitutes and then evaluate potential engineering controls to mitigate the remaining risk. Where engineering controls are insufficient or not feasible, we establish effective work practice controls including those that may require selected types of PPE.

Photo from Unsplash

12 million+ disposable masks

delivered to workers around the globe in 2020

Nearly 9,000 data points were collected and used during 2020 to evaluate risk or to confirm effectiveness of risk reduction investments, and 129 risk reduction actions were completed.

Working as a focused cross-functional team, we achieved business continuity and uninterrupted supply of products to patients by providing pandemic response procedures, supplies and approved protective equipment to on-site essential workers. More than 1,800 inventory items were actively managed with more than 1,000 shipments of essential supplies shared across the company. More than 12 million disposable masks were delivered to workers around the globe. In response to PPE scarcity during the pandemic, 315 new alternate PPE products were evaluated with an approval rate of 79 percent. Twenty-one percent were rejected as unapproved or counterfeit devices.

We developed performance specifications, selected and delivered nearly 4 million reusable cloth masks to our workers and their families during the COVID-19 pandemic. Wearing reusable masks supports our mission to preserve surgical masks and respirators for health care workers who need them, and to reduce waste by minimizing

daily discard of disposable masks. We contributed our mask design and performance experience with ASTM International to support publication of the new ASTM F3502-21 Standard Specifications for Barrier Face Coverings to benefit the global community.

We donated $4.8 million worth of personal protective equipment and supplies, including more than 1.5 million disposable masks, 2,700 N95 respirators, more than 900 gallons of sanitizers, and 5,000 goggles.

Biological safety

Our biological safety program protects our employees, customers, vendors, partners, and neighboring communities by systematically identifying, assessing, and controlling biosafety and biosecurity risks associated with the research, development, and manufacture of our vaccines and therapeutic proteins. Our biological risk management team drives safety by setting high performance expectations for governance, controls, strategy, planning, management, reporting, policies, processes, and corporate culture.

We strive to integrate biosafety considerations into the culture—for our internal and external stakeholders. For example, in 2020, we partnered with Global Engineering Services to update our engineering design standard that governs fit-for-purpose, large-scale biological facility design.

This enabled our company to:

- Quickly address human and animal health needs, including rapid development of vaccines to combat endemic or emerging infectious diseases like COVID-19
- Establish multiple, production-ready facilities for safe manufacturing of COVID-19 vaccines and therapeutics

$4.8M

worth of PPE and supplies donated in 2020 including:

- **Disposable masks**
- **N95 respirators**
- **Goggles**
- **Gloves**
- **Sanitizers**
- **Coveralls**

We demonstrate leadership in the field of biosafety by partnering with our community of public and private sector biosafety professionals, in order to develop guidelines that protect human and animal health and the environment. For example, in 2020, we helped the CDC develop, "Appendix M, Large Scale Biosafety," in the CDC/NIH publication, *Biosafety in Microbiological and Biomedical Laboratories* (BMBL), 6th edition, and contributed to the article "Promoting Biosecurity by Professionalizing Biosecurity", in *Science*, published February 21, 2020.

We promote a safe environment for our workers and protect the healthy living conditions of our neighboring communities. For example, our biological safety professionals facilitated 418 biorisk assessments to support research and development and manufacturing activities across all company divisions. By developing an asset called Biorisk Assessment and Repository (BAR), we believe that we have set new biorisk management standards in the industry. The tool provides a comprehensive repository of biological processes in the company, collates lifesaving information that supports first responders and clinicians, manages risk assessment lifecycle and communication within the company, and provides a comprehensive suite of assessments for different units of operation. BAR evaluates biosafety and biosecurity risk associated biological materials and establishes risk control strategies that protect human health and the environment.

Ergonomics

Our global ergonomics team reduces employee injuries by improving process efficiencies and human performance while advancing worker wellbeing through adaptation of conditions relating to tasks, equipment, and the work environment. The ergonomic program focuses on the identification and prioritization of highest-risk/highest-exposure work task in all areas of the organization (manufacturing, warehousing, research, sales, and support services) to drive down injuries and worker discomforts. We also provide standards to ensure ergonomic design requirements are incorporated into construction of new or renovated facilities to maximize worker comfort and health and minimize ergonomics hazards and risk factors.

Approximately 15 percent of our company's global, recordable injury cases are ergonomic-related; in 2020, the number of recordable ergonomic cases decreased 30 percent versus 2019. We have achieved a sustainable ergonomic program focused on utilizing a team/participatory approach to reduce risk by encouraging employee participation in workplace assessments and risk identification

and implementation of sustainable engineering controls. Where engineering controls are unavailable, administrative and behavioral controls are implemented including but not limited to job rotation, job hazard identification, and body mechanics training, to reduce risk of ergonomic injury until an engineering control can be identified and implemented.

In response to the pandemic, non-essential employees worked remotely. To support this change, a remote worker ergonomic assessment process was developed and deployed with collaboration from IT, Procurement, and Live It (Health and Wellbeing group). This new process provides worker access to resources that guide proper home office workstation setup and identify appropriate equipment and solutions needed to maintain a healthy work from home environment.

GRI 403-5 Worker training on occupational health and safety

Training is critical to building worldwide employee competencies that will improve compliance, reduce risks and drive continuous performance improvement.

We have a global standard that defines the EHS training expectations for employees in three categories:

- Manager training covers specific management responsibilities with regard to safety and environmental compliance and promoting a "safety-first" culture
- EHS professional training is designed to expand technical expertise and improve our EHS capabilities around the world
- Employee training covers the specific information our employees need to perform their jobs in a safe and environmentally compliant manner, focusing on hazards they encounter on the job and the corresponding control measures

Site EHS professionals complete an assessment of the activities performed at their sites and ensure that relevant topics are included in their site training plans. They develop employee training curricula to comply with internal and regulatory training requirements specific to their country. These training programs are reviewed periodically to ensure that they remain current. Our EHS training program materials are available in both instructor-led and e-learning formats. We also conduct periodic web-based seminars to inform EHS professionals of changes in regulations, standards and company practices.

In 2020, with the COVID-19 pandemic, the company ensured social distancing during training by modifying classroom training formats when in-person training was required, and shifting to web-based interactive training modules, where possible.

GRI 403-6 Promotion of worker health

Global Employee Health Services provides worker access to nonoccupational medical and health care services to address major nonwork-related health risks. The team operates both globally and locally.

Global Employee Health provide services that range from the administrative—such as medical clearances for job placement and evaluations to assess capability to perform a job task; to regulatory assessments for potential health hazards and reproductive health hazards; to consultations that prevent injury and illness like those related to travel and unique workplace hazards; to outright care for those suffering a serious injury or illness at work.

Locally, Global Employee Health supports the company's people through on-site employee health services clinics. These facilities, located on many sites, are staffed by dedicated Global Employee Health personnel or contractor employees. All facilities provide occupational and preventive health services that keep employees healthy, on the job, and functioning at optimal capacity. Global Employee Health supports many of the programs, including biometric screenings for employee personal health assessments, flu and other vaccinations, and mammograms.

Our most vital occupational health services relate to medical advice and consultation, medical evaluations, medical surveillance, care of occupational injuries and illnesses, identification and reporting of new potential hazards and adverse health effects, emergency medical response, and–most importantly–prevention.

To develop and maintain awareness of all workplace health hazards, Global Employee Health services maintains a close functional working relationship with site Management, Safety, and Industrial Hygiene

professionals. We are also responsible for maintaining employee health records in accordance with local regulatory requirements. Employee health is a vital priority at our company so we continuously improve our programs globally and at each site. These efforts range from communications for our global policies, procedures, and protocols; to administering regulatory and compliance audits; to providing critical oversight for our occupational health programs.

GRI 403-9	Work-related injuries
GRI 403-10	Work-related ill health

In 2020, we placed additional emphasis on proactively assessing existing processes and equipment that presented ergonomic risks. Formal plans drove risk assessments and an engineering control feasibility process was established to better mitigate risk factors following the hierarchy of control principles.

Lost time injuries/ illnesses by casual factors	Lost Time cases	% of Lost Time cases[1]
Slips-trips-fall	16	39
Struck-caught	11	26.8
Motor vehicle	4	9.8
Ergonomic	4	9.8
Chemical exposure	3	7.3
Other	1	2.4
Non-ergonomic	1	2.4
Phys/env exposure	1	2.4
Biological exposure	0	0
Total	**41**	

[1] May not total 100 percent due to rounding.

We have worked steadily to drive down our workplace injury rates.

In 2020, our lost-time incident rate (LTIR) was 0.05, a 56 percent decrease from 2019. Our recordable incident rate (RIR) was 0.16, a 47 percent decrease from 2019. This is our fourth consecutive year in the first quartile when compared against our pharmaceutical industry peers. There were no fatalities in 2020. The substantial decrease in the 2020 LTIR and RIR was due to a large percentage of our workforce working from home for the majority of the year due to COVID-19 precautions.

In 2020, 29 percent of our recordable injuries were related to slips, trips and falls, with "struck-by/caught-in" and ergonomic-related injuries accounting for 37 and 15 percent of the total number of injuries, respectively. We continue to focus our efforts on reducing these types of injuries. In addition to our focus on the safe design of new facilities, we proactively address existing risks through the hierarchy of controls, focusing on eliminating high-risk tasks, improving engineering controls and perform coaching and training to our workforce to aid in identification of risks.

In 2020, three percent of our company's recordable injuries were related to motor vehicle collisions. We experienced a 41 percent reduction in the number of collisions and 18 percent reduction in mileage driven. In 2020 we focused the driver safety program to help our employees to return to work safely, including vehicle pre-inspections, vehicle and mobile devices hygiene, COVID-19 related

Recordable injuries/illnesses by casual factors (total:132)	% of Total[1]
Slips-trips-fall	**28.8**
Struck by/caught in	**37.1**
Motor vehicle	**3.0**
Ergonomic	**15.2**
Chemical/biological exposure	**6.1**
Other	**7.6**
Non-ergonomic	**1.5**
Physical/environmental exposure	**0.8**

safety precautions among others. Our global vehicle safety program includes a standard duty of care by holding both employees and managers accountable for achieving safe driving expectations.

Construction

In 2020, we received one safety excellence award for our EMEA/AP projects safety management program (3-year period from 2018-2020) from the construction user round table (CURT). CURT is a global organization that provides an international forum for the exchange of information and expertise to improve safety, productivity and competitive advantage for the construction industry.

In 2020, we logged 11 million construction hours globally and achieved zero injuries on 95 percent of our capital construction projects. Our 2020 construction safety RIR of 0.60 reflects an increase over our 2019 rate of 0.42 and just over our 2020 target of 0.55. Our capital construction projects also achieved a DART rate of 0.24, which was slightly above our 2020 target of 0.23.

In 2020, we had a 2 million hour increase in the number of construction hours, and more capital projects in all regions of the world. In addition, the COVID-19 impact, while massive in 2020, did not affect the construction safety performance. Our injury rates continue to improve and be significantly better than construction industry averages. Construction projects also set a record with 160,000 Tap Ins (safety observations) being reported in 2020.

In 2020, we had two high consequence work-related ill health injuries involving one hot-work incident in the Asia-Pacific region. Two workers were burned significantly in the event and suffered days away from work. In 2020, 95 percent of injuries were injuries suffered in low risk/routine tasks. The top two 2020 injury categories included slips, trips and falls from the same elevation, and hand and finger cuts requiring stitches.

Non-employees

In 2020, our IFM partners had a total RIR of 0.35 and a LTIR of 0.26. Our major IFM providers' injury rates continue to be significantly better than industry averages.

Global safety performance[1, 2]	2016	2017	2018	2019	2020
Workplace safety					
Recordable incident rate (RIR)	0.35	0.33	0.30	0.30	**0.16**
RIR percentage change	-27%	-6%	-9%	0%	**-47%**
Lost-time incident rate (LTIR)	0.13	0.13	0.10	0.11	**0.05**
Fatalities[3]	0	0	2	0	**0**
Motor vehicle safety					
Collisions per million miles (CPMM)[4]	9.4	7.29	6.93	7.01	**5.07**

Note: Injury rates are subject to change over time, as new cases are added and case classifications change in accordance with our own requirements and applicable regulatory requirements. We report injury/illnesses together in our rates and analyses.

[1] LTIR/RIR: Calculated per OSHA methodology.

[2] The company metrics presented in this table are captured from the corporate managed data system. Newly acquired facilities are not included in this data set. However, based on conservative estimates of this not yet included data, the company would still fall within the 1st quartile of performance when compared with its peer member companies in the Pharmaceutical Safety Group (PSG).

[3] In 2018, one fatality was transportation-related. The other was a high-risk work fatality.

[4] CPMM: Reflects both personal and business use of company-owned or -leased vehicles.

Cases by business area (#)	Lost-time cases	Recordable cases
Facility Management	2	5
Global Human Health (GHH)	15	25
Global Support Functions (Legal, HR, IT, S&E, et al.)	2	7
Animal Health	3	10
Manufacturing (MMD)	16	77
Research (MRL)	3	8
Total	**41**	**132**

Capital projects construction safety[1, 2]	2016	2017	2018	2019	2020
RIR	0.53	0.59	0.73	0.42	**0.60**
DART[3]	0.26	0.32	0.28	0.15	**0.24**
Fatalities	0	0	0	0	**0**

Facility management contractor safety[4]	2016	2017	2018	2019	2020
RIR	N/A	N/A	0.71	0.55	**0.35**
LTIR	N/A	N/A	0.47	0.42	**0.26**
Fatalities	N/A	N/A	0	0	**0**

NA: Not Available.

Note: Incident rates are subject to change over time, as new cases are added and case classifications change in accordance with our own requirements and applicable regulatory requirements.

[1] LTIR/RIR: Calculated per OSHA methodology.

[2] Primarily reflects capital projects over $100,000 managed by our global engineering group.

[3] DART: days away, reassigned or transferred, calculated per OSHA 300 methodology.

[4] Incident rates for IFM partners; reporting initiated in 2018.

Training & education

GRI 404 Management approach

Whether we are inventing the next breakthrough treatment or simply challenging and supporting one another for ongoing development, we lead through a culture of applied curiosity.

The Global Learning and Development (GL&D) organization's primary focus is to enable a diverse and accessible environment in which all can learn and thrive. We accomplish this by collaborating with business partners across the company to understand and align to critical business challenges. Then we design, develop and execute innovative learning solutions and experiences to strengthen our human capital strategy.

GL&D ensures all learning opportunities are developed to allow for diversity of thought, experience and an enriched accessible learning environment. We identify learning needs of our globally diverse employee population through extensive discovery of learner personas, requirements and environments. Our strategy allows us to identify, prioritize, design and develop learning solutions that drive results and impact. Solutions include, but are not limited to, building leadership and management capability, technical and functional reskilling and upskilling.

GL&D understands employee skills and capability must support the company's vision and mission. As a result, we continuously evaluate our organizational capability needs and retool the learning culture and strategy to support.

GRI 404-1	Average hours of employee training
GRI 404-2	Programs for upgrading employee skills and transition assistance programs

Tools and resources

Our current talent management practices provide company-wide performance management, leadership development, talent assessments, talent reviews and succession planning. Talent management designs and implements the enterprise wide talent development and leadership strategy aligned to business strategy in order to retain and attract talent, support and develop a diverse workforce, and create a strong succession pipeline. Talent practices are supported by a human capital management system which enables managers and employees to keep track of business and development priorities, performance ratings, career aspirations, job experiences, skills, language proficiency, certifications and education.

Managers and employees are encouraged to meet throughout the year to discuss progress and accomplishments against their priorities. Emphasis is placed on creating a culture of ongoing coaching and future-focused feedback. At year-end, colleagues summarize their achievements and assess the impact they have had on the organization, their team and their own development. Managers conduct annual performance reviews of employees at all levels (except those subject to collective bargaining agreements) to guide individual decisions relating to development, compensation and rewards.

Employee performance is measured, in part, by how well employees demonstrate the company's aspirational culture and Ways of Working. We seek to emphasize not just what an employee achieves, but also how he or she achieves it. Managers gather feedback about their colleagues and write performance reviews describing the ways in which their team members demonstrated the company's Ways of Working in their accomplishments.

Transition assistance programs may be provided to support employees who are exited as part of a company workforce restructuring. Such benefits which may include the following, however, are subject to local plans, laws and country guidelines:

- Severance benefits which may include severance pay based on employee level and service
- Outplacement job transition assistance
- Continued health and wellness benefits for a defined period of time

Build the Best Teams & Talent

This global program is intended to help the organization learn, grow and achieve. Based on neuroscience, it gives employees practical strategies and tools they can use to effectively share and receive more frequent feedback from diverse stakeholders and increase the quality of performance conversations.

Management and leadership programs

Management Foundations is a comprehensive program that focuses on building core, common and critical knowledge and skills for new managers. Using a variety of learning methods, new managers are trained on what they need to know and do to be effective in their role and to establish foundational management skills.

In addition, we offer programs for experienced managers focused on areas like strategic planning, innovation and influencing others.

Team and individual development

We have programs that provide skill trainings and tools that support building and maintenance of effective teams, including Building High Performance Teams, Virtual Teaming offerings (for example: Dealing with Change, Building Trust, and Shifting your Mindset through Improvisation), Assessing Team Performance through an online survey tool, and Insights Discovery.

In addition, individual developmental assessments may be used to identify strengths and developmental areas as a way to prepare employees for higher-level positions or accelerate performance in their current job. These assessments prioritize developing leaders that will create a positive work environment and inspire their teams to contribute to the company's goals. Based on an individual's observed behavior, personality or skills these assessments provide comprehensive feedback that is used to create an action plan and individual development goals.

Individuals may also drive their development by accessing subscribed resources found on an internal, central platform. These resources include, but are not limited to:

- Harvard Management Mentor
- Get Control!
- AchieveForum
- Cultural Navigator

Employees can register for free events and webinars to drive their development in areas of Leadership, Teaming, and Professional Skills. Training can be done on the learner's time and focus can be set to close areas of development or to further strengthen skills of interest. The various platforms offer multi-modal resources with trainings to accommodate all schedules.

Key talent focus

We advance the learning and development of our global key talent at all levels of the organization to support the advancement of our talent pipeline and diversity and inclusion strategy.

The learning experiences include:

General Management Acceleration Program (GMAP)

Our flagship, application-based program to develop future global, enterprise-wide leaders. The objective of GMAP is to create a robust global acceleration program for internal and external talent, providing the right experiences and learning opportunities to help meet our future business demand. Successful participants broaden their experience and perspective, enhance their leadership abilities and are well positioned to move into areas of greater responsibility following their rotations.

GMAP performance	2020
Post-program retention	99%
Lateral moves	26%
Promotions	38%

The Business Leadership Program

A global, nomination-based program on advanced concepts in business and financial management and cross- functional leadership at an enterprise-wide level. The program develops leadership capabilities to help manage external environmental trends and their potential impact. Participants experience the language of finance through simulated experiences focused on the fundamentals of a company's balance sheet, income statement and cash flow, how to integrate long-term plans with short-term action and how to create a strategy that will drive decisions.

Business Leadership Program	2020
Post-program retention	87%
Lateral moves	39%
Promotions	38%

Leadership Pathway

The Leadership Pathway focuses on director-level key talent. The purpose is to develop individuals to be change makers who engender inclusion and trust, inspire experimentation, feedback, and learning and achieve aspirational business outcomes for the company today and tomorrow.

Leadership Pathway	2020
Post-program retention	100%
Lateral moves	21%
Promotions	28%

The Women's Leadership Program

A global, nomination program focused on enhancing women's key capabilities to recognize and seize strategic career opportunities by developing critical capabilities and confidence while contributing to core objectives of our company. Areas of focus include: strengthening the ability to navigate within the organization while maintaining an authentic leadership style; increasing cultural competence regionally; advanced skills in influencing and storytelling; advancing the ability to recognize and manage gender differences and subtle "micro-inequities" by leading through courageous action.

Women's Leadership Program	2020
Post-program retention	83%
Lateral moves	41%
Promotions	32%

Diverse Leader Program (U.S. only)

This thought-provoking nomination program is an interactive leadership journey designed to create a safe place where participants can hone their leadership skills while exploring what it means to be a person of color in a leadership role within the company. While building leadership proficiency, participants investigate the similarities and differences of leaders from other racial and ethnic groups, and deepen relationships with their mentors through hands-on activities and conversations.

Diverse Leader Program	2020
Post-program retention	90%
Lateral moves	34%
Promotions	32%

Rise

An exclusive experiential program leveraging some of the best-in-class institutions from around the world, designed for our executive directors and associate vice president talent. This program increases our company's talent pipeline and succession planning for critical roles with focus on critical leadership capabilities. This program submerges leaders into creative and critical thinking environments, while cracking real-world challenges to amplify their enterprise view in preparation for future upward succession. The participants have influence to drive productive change, to attract, retain, lead and develop diverse talent, and ultimately to drive business results. We view this talented group as change agents who can lead the organization into the future.

Rise *(formerly Enterprise Leadership Program)*	2020
Post-program retention	77%
Lateral moves	39%
Promotions	45%

Executive Acceleration Experience

An inspiring and actionable learning experience designed to help our company's senior leaders further embed and amplify their leadership capabilities. The experience involves small cohorts being immersed in a variety of leadership principles, looking outside the company for broader inspiration and devising experiments they can run with their teams.

Our partners

Through careful consideration, partnerships have been formed with global diverse thought leaders to support the Key Talent Portfolio. We work with these external partners to provide the highest quality and impactful learning experience.

Examples of our partnerships include:

- Duke Corporate Education
- Saïd Business School and the University of Oxford
- Cornell University
- Center for Creative Leadership
- Stanford University

For more information on our training and education efforts and programs, please see GRI 102-17 on page XX.

Promotion metrics[1]	2019	2020
Men	47%	**48%**
Women	53%	**52%**

[1]Breakdown by gender, of all regular employees promoted during the fiscal year. "Regular employees" is defined as full and part-time employees only.

GRI 404-3 Percentage of employees receiving regular performance reviews

Performance reviews	2016	2017	2018	2019	2020
Executives[1]	100%	100%	100%	100%	**100%**
Middle management	100%	100%	100%	100%	**100%**
Line supervisors	100%	100%	100%	100%	**100%**
Non-managers[2]	94%	93%	94%	94%	**95%**

[1]"Executives" refers to the first two organizational levels below the chief executive officer.
[2]All "non-managers" (previously "individual contributors") including those who are subject to a collective bargaining agreement (unions).

In 2020, as in years past, the percentage of performance reviews has held steady for managers and employees. As a company we continue to utilize our current talent management system which supports company-wide performance management, development, talent reviews and succession planning. It helps ensure that our workforce is aligned with company objectives and focused on their ongoing professional development. The system allows managers and employees to keep track of business and development priorities, performance ratings, career aspirations, job experiences, skills, language proficiency, certifications and education.

Throughout the year, managers are encouraged to discuss with each of their employees his or her strengths and development opportunities to align on ways to grow capabilities and skills.

Diversity and equal opportunity

GRI 405 Management approach

Management approach

In 2020, our strong foundation in global diversity and inclusion (GD&I) uniquely positioned us to address the needs of employees, customers and the patients we ultimately serve. We took necessary steps during uncertain times to accelerate and amplify our company commitment to create a more diverse and inclusive workplace. From supporting our employees through the pandemic, addressing the increased attention given to racial justice issues, continuing our work to address pay equity, and fostering disability and LGBTQ inclusion, we met the challenges of 2020 with purpose, integrity and strategic intent.

Our ability to accomplish our objectives is linked to the GD&I Strategy—our framework for sustainable competitive advantage. Through it, we align with our mission to save and improve lives and our purpose to create an environment of belonging, engagement, equity and empowerment that compels a globally diverse and inclusive workforce which works to improve patient health.

$2 billion+
in supplier diversity spend in 2020

Our business objectives for diversity and inclusion are fully aligned to drive long-term, sustainable business performance. In addition, our objectives for diversity and equal opportunity support the SDGs of advancing gender equality, providing decent work and economic growth, reducing inequalities within and among countries and strengthening global partnerships.

Our GD&I strategic framework focuses on the following priorities:

- Continue to build the diversity and inclusion capabilities of our global workforce
- Ensure accountability at all levels of the organization
- Integrate diversity and inclusion into our business practices to drive performance
- Work to influence the environment, culture and business landscape to help achieve a more inclusive and sustainable world

GD&I ambassador teams

Our GD&I CoE oversees diversity and inclusion across all business practices and systems. The CoE leverages five diversity ambassador teams to ensure integration into our business and people strategies.

The Global Disability Inclusion Strategic Council

The Council recognizes and values the importance of a disability-confident workforce and understands how full inclusion of people with disabilities increases creativity and innovation for its employees, customers, external partners and suppliers.

The GD&I Extended Human Resources Leadership Team

This team of Human Resources professionals supports the global organization by ensuring the successful adoption and integration of diversity and inclusion capabilities into all practices, programs, procedures and systems. A key outcome is to enable a diverse & inclusive culture—one that attracts, engages, develops, motivates and retains top talent globally.

Employee Business Resource Group (EBRG) Executive Leadership Council

With ten EBRGs representing different constituencies, the Council of global EBRG leaders work together to support over 21,000 members worldwide, strengthen and diversify the global leadership pipeline, and provide culturally relevant insights that drive our success.

GD&I Business Consortium

This Consortium, comprised of members from Business Strategy, Supplier Diversity, Clinical Trials and other key business functions, enhances our business performance through GD&I best practices—creating a competitive business advantage and driving shareholder value. Our company's Chief Finance Officer acts as the Consortium's executive sponsor.

GD&I Line Advisory Council

Serving as an advisory role to the Vice President, GD&I CoE, the Council provides input and feedback on the GD&I strategy and key initiatives and offers perspectives on areas of progress, as well as opportunity, in relation to integrating GD&I into the company's business and people strategies.

GD&I governance and commitments

Global Diversity & Inclusion is a strategic business lever for performance—endorsed at the highest levels of the organization. Diversity and inclusion represent a key dimension of our commitment to our ESG goals.

Our Board of Directors has a clearly stated Diversity Policy, which recognizes that maintaining a truly diverse membership, including educational and professional background, gender, race, age, sexual orientation, ethnic and national background and other differentiating personal characteristics promotes inclusiveness, enhances the Board's deliberations, and contributes to the Board's overall effectiveness to better represent the long-term interests of the company and its shareholders. We stand ahead of our industry peers in the representation of women on the board.

Our commitment to GD&I is further reinforced by our CEO. Our company's CEO advocates for diversity and inclusion as a strategic business imperative through the following commitments:

- Approving diversity metrics and reviewing progress against aspirational talent goals for women and under-represented ethnic groups (UEGs) and against our [inclusion index]
- Driving accountability through meetings with the company's leaders and engaging employees in company-wide events to review key strategic initiatives centered on GD&I
- Conferring with the company's Vice President of Human Resources and Chief Diversity Officer on innovation opportunities and business solutions
- Leading authentic listening sessions with employees to engage on topics related to social injustice

Equitable pay

We have had a longstanding commitment to diversity & inclusion and fair & equitable pay. This commitment is consistent with our core values of integrity, fairness and treating all people with the dignity and respect. Having the right culture, systems and practices for talent recruitment and development are critical in driving our company's ability to compete in global markets where talent is increasingly scarce and increasingly diverse. Diversity, equity and inclusion are ethical *and* strategic imperatives.

Pay equity is a very important principle at our company. We regularly monitor and evaluate our pay practices and policies to ensure that we are paying equitably.

We chartered a Pay Equity Council which is chaired by our Chief Diversity and Inclusion Officer and our SVP of Global Compensation and Benefits and is comprised of leaders across GD&I, Compensation and Benefits and Employment Legal.

We have developed guidance to assist our recruiting team in making hiring pay decisions based on skills, work experience and other job-related factors.

We look for opportunities to train our managers on our compensation strategy and programs to ensure their decision-making process is based on legitimate job-related criteria and not personal characteristics such as gender, race or ethnicity.

Pay equity is a topic that is rightly receiving a great deal of attention and scrutiny. While many other organizations have only recently begun to explore how to pay their employees equitably, providing fair and equitable pay is one of the pillars of our compensation philosophy.

We have engaged external experts and legal partners to conduct annual pay equity studies in the U.S., and we are conducting similar studies in multiple countries around the world. These studies allow us to make any necessary adjustments in order to ensure we continue to pay our employees equitably and fairly. By the end of 2021, we expect that our pay equity studies will cover 75 percent of our global population, and we have plans to further expand the scope of these studies in the coming years.

Our continuing focus on pay equity furthers our goal of being the employer of choice for employees of diverse backgrounds, and it supports our efforts to attract and retain the best talent and reward performance consistent with our Leadership Standards. These are clear business imperatives for our company, and we remain firmly committed to them.

Initiatives to help build a more inclusive workforce

We focus our efforts to create a work environment where everyone has access to the same opportunities.

Gender equality is addressed at all levels of the organization and a number of resources and development programs are provided including:

The Merck Women's Network, one of ten Employee Business Resource Groups (EBRGs) at the company, is designed to develop and empower women within the organization.

The Women in Leadership Program is a global, nomination initiative designed to support the advancement of women into senior leadership ranks.

The Emerging Women's Leadership Program is designed for female professionals to begin to develop their capabilities to take on critical leadership roles in the future.

The Re-invent Program recognizes that a disproportionate number of women take breaks throughout their career and that re-entering the workforce can sometimes mean taking a step back. In partnership with the Society of Women Engineers (SWE), our company offers the Re-Invent Program, where individuals who have taken a pause in their careers can return in an internship role to a new position in the company. This provides the individual with new work experience and enables a manager to assess performance of the individual, as well.

Our Diverse Leaders Program is an interactive leadership journey designed to create a safe place where leaders of color—both men and women—can hone their leadership skills while exploring what it means to be a person of color in a leadership role within the company.

Our company's external commitments to pay equity and gender equality include the following:

2020 Bloomberg Gender-Equality Index

Our company was named to the 2020 Bloomberg Gender-Equality Index (GEI) which recognizes companies committed to transparency in disclosing gender-related metrics and investment in workplace gender equality.

Paradigm for Parity

In 2018, we signed on to support Paradigm for Parity—a call-to-action and model for gender equality. The goal of the coalition is to achieve full gender parity by 2030, with a near-term goal of women holding at least 30 percent of senior roles. We have deepened our engagement with P4P through our implementation of the 5-point action plan to:

- Minimize or eliminate unconscious bias
- Significantly increase the number of women in senior operating roles
- Measure targets at every level and communicate progress and results regularly
- Base career progress on business results and performance, not on presence
- Identify women of potential and give them sponsors, as well as mentors

United Nations Women's Empowerment Principles

We continue tracking our progress against the United Nations Women's Empowerment Principles. These principles reflect seven areas of focus designed to promote gender equality in business. Research shows that at the current rate of progress, it will take 202 years for women to achieve economic parity. The full economic participation of women in the workforce will generate $12 trillion to $28 trillion in GDP.[1]

We remain committed to equity across gender, race and ethnicity as a strategy to drive business results and advance our mission. We continue to establish leadership programs to promote equality and publicly report on our progress to achieve gender equality. Examples of how we achieve this objective, and our broader diversity and inclusion commitment, are as follows:

Gender sensitive recruitment and retention

Talent acquisition plays a pivotal role in sourcing and attracting diverse talent and in consulting with hiring managers to eliminate unconscious bias in the selection process. Using a gender decoder tool for job postings, biased language is highlighted with suggested alternative wording, helping to create gender neutral and inclusive job descriptions.

D&I capability building, networking, and mentorship opportunities

In 2021, to support the learning and development of global employees, we launched the Understanding your Role in Creating a Diverse and Inclusive Workplace myLearning course to strengthen our diversity and inclusion focus by continuing to build capabilities, awareness, and education so we can nurture and grow a more inclusive culture within our company.

Support for working parents and caregivers

Using multiple listening methods—from employee focus groups, to frequent pulse checks, to employee surveys—we created a pathway to hear directly from the workforce on issues and challenges of importance so that we could leverage employee input in the design and development of resources and benefits to best support their needs.

To learn more about how we support employee wellbeing, please see GRI XXX-XX on page XX.

Zero-tolerance policy against violence and harassment at the workplace

In 2020, our company's policy for Prevention of Harassment, Discrimination and Bullying in the Workplace was updated to include Workplace Violence for inclusion in the U.S., Puerto Rico and regional policies.

Opportunities for people with disabilities

We reinforce this potential through a culture of transparency and accountability—one that has resulted in recognition by Disability:IN as "Employer of the Year"—and pledge alliance with external organizations that have a shared vision for full disability inclusion.

[1]The power of parity: How advancing women's equality can add $12 trillion to global growth

Disability: IN

Our company was recognized by Disability:IN® as the 2020 Employer of the Year for our exemplary policies, strategies, and initiatives that have resulted in measurable results in areas of disability inclusiveness in the workplace, marketplace and supply chain.

Valuable 500

Our company announced its membership in The Valuable 500 in January 2020. The Valuable 500 is dedicated to unlocking the business, social and economic value of people living with disabilities, ensuring women and individuals with disabilities are provided ample resources to thrive in the workplace.

Mental health at Merck

One Mind at Work—Mental Health

Our company's CEO signed the One Mind at Work Charter pledging to make mental health a priority by protecting, supporting and enhancing employee wellbeing in the workplace. Through One Mind at Work, which leverages the support of The Kennedy Forum, we collaborate with One Mind at Work to enable broad-scale transformation in how mental health is viewed and approached in the workplace, and how we can gain equity, collaboration, and parity between physical and mental health.

R U OK? Mental Health and Wellness

During 2020, and in response to struggles with stress and emotional wellbeing, particularly due to the global pandemic, we introduced a new program, R UOK? Day Mental Health and Wellness e-Learning for Managers. The e-Learning program, R U OK?, provides facts, talking points and tips managers can use with team members to discuss emotional wellbeing and mental health. It is one more way we are promoting a culture of wellbeing and inclusiveness as part of LIVE IT, our holistic approach to wellbeing.

Digital accessibility

While teams across the company have been practicing digital accessibility with varying capabilities and methods, in 2020 a new company-wide policy was launched to aligns these teams under a common set of standards and procedures. The Web Content Accessibility Guidelines (WCAG), the international standard from which the new company-wide policy is based, details how to design and develop our web enabled products and services, electronic documents, and software for digital accessibility. These guidelines allow people with disabilities to equally perceive, understand, navigate, and interact with our company's websites and tools.

Addressing injustice and disparity

Systemic racial injustices and disparities were among the polarizing and major news events characterizing 2020. These events, prompted by the widely publicized incidents of racism and discrimination, enabled our employees to leverage our ongoing efforts to provide a psychologically safe place for employees to have bold, inclusive conversations and engage in constructive dialog with peers and teams about the significance of these events.

We responded in several ways:

- Kenneth C. Frazier was among the first CEOs to address their employees about racial injustice, and also make a public statement about systemic racism
- Leaders participated in listening, learning and action sessions to address unconscious bias, discrimination, and exclusion, while asking their employees to do the same
- Updates were provided to the Board of Directors on our ongoing efforts to address social injustice both internally and externally
- Chapter leaders from our EBRGs, including the League of Employees of African Descent (LEAD), Alianza, and the Asia Pacific Association (APA), met with members and leaders to host courageous conversations in a safe, open setting
- In response to the anti-Asian events, we created space for dialogue about how each of us can work to create a safer and more equitable company community and society
- We provided Resources for Living, an employee assistance program, to help our employees cope with trauma and anxiety associated with social and racial unrest during a socially isolated time
- Delivered weekly Bold & Inclusive Conversations training sessions to build capabilities of managers and employees globally

We enhanced collaboration and alliances with key external partners on diversity and inclusion, including:

CEO ACT!ON for Diversity and Inclusion®

Our company has been among the earliest members of this organization, pledging in 2017 to reach diversity and inclusion goals. With the elevated social media unrest and news prompted by the killing of George Floyd in 2020, we deepened our engagement with this organization to drive change. We participated in "A Day of Understanding," candid dialogue to bring people together, and offer unconscious bias education to all employees within the global enterprise to build awareness of ways to mitigate bias in the workplace and foster inclusion.

In response to external unprecedented events, we renewed and reaffirmed our commitment to accelerating representation in areas where there was underrepresentation for various populations, including women, Asian, Black/African American, and Latino populations. We accelerated our commitment to Black/African American and Latino talent, and deepened our investments and outreach with Black and Latino populations. We worked diligently to build the pipeline of African American/Black and Latino executive and emerging leaders to reflect the availability of external talent.

These investments include strategic alliances with the following organizations:

MANRRS

Our company's Animal Health Division partners with Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS) to identify diverse talent from the agricultural sciences and related fields and to expose them to the variety of career paths available in addition to the veterinarian field. Technology, animal intelligence, smart data products and services for the management and wellbeing of livestock, fish, and pets—areas where Merck Animal Health Intelligence (MAHI) is a global, world-class leader—are examples of exciting career paths that are available to today's talent, but where awareness is low. To deepen its investment with MANRRS, Merck has provided $3.5 million in student scholarships and is a platinum sponsor of the organization conferences.

Year-Up

Our company is among the more than 250 corporations partnering with an innovative nonprofit organization, Year Up. This nonprofit ensures equitable access to economic opportunity, education, and justice for all young adults—no matter their background, income, or zip code. They accomplish this goal by closing the opportunity gap in the job market for economically disadvantaged youth by offering six months of intensive training and a six-month corporate internship in information technology, financial operations, sales and customer support, business operations or software development and support at major corporations. To date, 24 student internships have been provided through Year-Up by our company.

Expanding our pipeline of diverse talent

In 2020 we greatly expanded outreach to Historically Black Colleges and Universities (HBCUs) by partnering with several organizations, including the College Diversity Network and the National Urban League, to focus on building deep partnerships with colleges, students, faculty, and alumni of HBCUs.

We also focus on systemic barriers that limit the candidate pool based on geographic location of open positions and talent residency, and job prerequisites of having prior pharmaceutical experience. To broaden our access to diverse talent, we post some positions with an option to work virtually, offer relocation services, and are agnostic to prior pharmaceutical experience. We leverage key partnerships such as:

- Executive Leadership Council (ELC)
- INROADS College Links
- National Urban League
- ALPFA
- National Action Council for Minorities in Engineering (NACME)
- Ascend
- Out & Equal
- Disability:In
- Best Buddies
- The International Labour Organization (ILO) Global Business and Disability Network (GBDN)
- Women of Color In Pharma (WOCIP)

Measuring for impact

We establish clear, measurable goals with our leaders and throughout the business enterprise in the following areas:

Women and under-represented ethnic group (UEG) representation

Leaders and Managers are highly encouraged to incorporate clear diversity and inclusion goals as part of their annual performance priorities and reviews. In addition, we utilize specific, time-bound action plans with aspirational targets to increase the representation of women globally and UEGs in the U.S. leadership positions. We have diversity metrics and review progress against aspirational talent goals for women and UEGs at the most senior levels of the organization.

Fostering a culture of inclusion

Leaders and managers are held accountable for maintaining an inclusive culture across the business enterprise. We acknowledge those who excel in demonstrating inclusive behavior through the company's INSPIRE Awards. Launched in 2019, INSPIRE fosters a culture of recognition and engagement by empowering all employees to recognize others. By the end of 2020, INSPIRE recorded over 300,000 recognition moments across 85 countries.

Learn more about how we engage with employees in GRI XXX-XX on page X.

Economic inclusion, health equity and workforce development

In 2020, a cross-functional working Council was chartered to improve coordination of the company's longstanding global efforts in health equity, economic inclusion and external workforce development.

Economic inclusion

Our commitment to diversity and inclusion includes providing decent work and economic inclusion for diverse suppliers, including minority, women, veteran, LGBT, and people with disability-owned businesses, as well as small business enterprises. During 2020, the company's 35th anniversary of the Economic Inclusion & Supplier Diversity (EI&SD) program, we exceeded our corporate goal of $2B in the U.S. and achieved an economic impact of $4.8B, with over 30,000 jobs being sustained and created by our diverse suppliers.

We further deepened access for economic inclusion during 2020 by introducing the first virtual engagement Opportunity Fair, entitled, "It begins with Me." More than 2,000 U.S. and global company category managers and stakeholders participated in this Opportunity Fair to, "Meet a supplier, Mentor a supplier or Measure impact." As a result of the Opportunity Fair, 426 capability statements from diverse suppliers were obtained, representing further opportunity for economic inclusion development and growth.

For more information on our supplier diversity program, please see GRI XX-XX on page XX.

Health equity

U.S. clinical operations

We have set goals to ensure appropriate diversity representation of patients participating in clinical trials in relevant therapeutic areas.

Learn more about our commitment to diversity in clinical trials on TBD LINK.

Health literacy

Our company made significant improvements in reducing health care disparities and improving health literacy among patients, globally.

Learn more about our commitment to addressing health literacy on TBD LINK.

Workforce development

OneTen

In 2020, Ken Frazier, our company's Chairman, signed on as co-chair for OneTen, a new initiative that aims to close the opportunity gap for Black women and men in America and to make a meaningful, measurable, and lasting systemic impact on racial and economic justice. Recognizing that the current system has reinforced systemic barriers that have prevented many Black Americans from the opportunity to earn success, OneTen has set out to change the way companies provide more equitable environments to drive better business outcomes and benefit all employees.

To learn more about the OneTen initiative here.

INROADS College Links

Since 2019, we have partnered with INROADS, an international nonprofit organization that prepares talented, diverse youth for corporate and community leadership, and launched a yearlong College Links program for high school students in Newark, New Jersey, to increase college and career readiness.

To learn more about our training and development programs for employees, please see GRI XXX-XX on page XX.

GRI 405-1 Diversity of governance bodies and employees

Female representation, by job category (global)	2016	2017	2018	2019	2020
Board	23%	23%	23%	33%	**43%**
Executives[1]	22%	22%	20%	20%	**33%**
Senior management[2]	25%	25%	27%	30%	**31%**
All managers[3]	39%	39%	41%	42%	**42%**
All employees	48%	49%	49%	49%	**49%**
New hires	51%	49%	51%	50%	**50%**
Promotions	51%	52%	52%	53%	**52%**

Underrepresented ethnic group (UEG) representation, by job category (U.S.)	2016	2017	2018	2019	2020
Board	23%	23%	15%	17%	**29%**
Executives[1]	33%	33%	30%	40%	**25%**
Senior management[2]	15%	17%	19%	21%	**20%**
All managers[3]	19%	20%	22%	23%	**24%**
All employees	25%	26%	28%	29%	**30%**
New hires	33%	37%	36%	35%	**40%**
Promotions	25%	28%	28%	30%	**32%**

Note: Our company has publicly disclosed EEO-1 information since 1999. Our 2020 data is available on the ESG Policies & Resources page of Merck.com. Board statistics are as of of July 1, 2021. All other figures are as of December 31, 2020.

[1] "Executive" is defined as the executive team who reports to the chief executive officer.

[2] "Senior management team" is defined as vice presidents and above, not on executive team.

[3] "Management role" is defined as all other managers with at least one direct report.

Underrepresented ethnic group (UEG) representation, by ethnicity (U.S.)	Total	Black/ African American	Latino/ Hispanic	Asian	All Other
Board	**29%**	29%	0%	0%	**0%**
Executives[1]	**25%**	20%	0%	5%	**0%**
Senior management[2]	**20%**	3%	5%	11%	**1%**
All managers[3]	**24%**	5%	5%	13%	**1%**
All employees	**30%**	8%	5%	15%	**2%**
New hires	**40%**	11%	7%	19%	**3%**
Promotions	**32%**	9%	6%	15%	**2%**

Note: Our company has publicly disclosed EEO-1 information since 1999. Our 2020 data is available on the ESG Policies & Resources page of Merck.com. Board statistics are as of of July 1, 2021. All other figures are as of December 31, 2020.

[1] "Executive" is defined as the executive team who reports to the chief executive officer.

[2] "Senior management team" is defined as vice presidents and above, not on executive team.

[3] "Management role" is defined as all other managers with at least one direct report.

Human rights assessment

GRI 412 Management approach

As stated in our Human Rights Public Policy Statement—we strive to avoid causing or contributing to adverse human rights impacts through our own activities and seek to prevent or mitigate adverse impacts that are directly linked to our operations and products.

We've put in place appropriate policies, processes, training and monitoring systems to address key human rights issues. Support and respect for the protection of human rights is embedded and reflected in our operational policies and procedures, as summarized in the table below.

Human rights issue	Policies / standards													Rights holders			Governance
	Human Rights Public Policy	Human Rresources Policy	Labour & Human Rights Policy	Environmental, Health & Safety Policy	Procurement & Supplier Relations Policy	Business Partner Code of Conduct	Information Management & Protection Policy	Privacy & Data Protection Policy	Reporting & responding to Misconduct Policy	Flexible Workplace Policy	Compensation Policy	Prevention of Violence in Workplace Standard	Possession of Firearmes Standard	Company employees	External workers	Direct suppliers	Lead function
Living wages	X	X	X								X			X	X	X	**Human Resources**
Health and safety	X	X	X	X										X	X	X	**Global Safety & Environment**
Forced labour and human trafficking	X	X	X											X	X	X	**Human Resources**
Discrimination and harassment	X	X	X											X	X	X	**Human Resources**
Child labour	X		X											X	X	X	**Human Resources**
Freedom of association	X		X											X	X	X	**Human Resources**
Social security	X	X	X								X			X	X	X	**Human Resources**
Working hours	X		X							X				X	X	X	**Human Resources**
Privacy	X		X				X	X						X	X	X	**Global Privacy Office**
Security	X											X	X	X	X	X	**Global Security**
Access to grievance mechanisms	X	X	X	X	X	X	X	X	X					X	X	X	**Office of Ethics**
Suppliers / business partners	X		X	X	X	X	X	X	X					X	X	X	**Global Supplier Management**

Remedy

As part of our efforts to protect against business-related human rights abuses, we have established a company-based grievance mechanism that allows employees and workers to report concerns in a confidential manner without fear of retaliation (see the Speak Up section in our human rights policy).

Our company-based grievance mechanism and associated reporting channels are fundamental to ensuring that employees and workers have access to effective remedy whenever human rights impacts occur.

We require our suppliers to encourage all workers to report concerns or suspected illegal activities without threat or reprisal, intimidation, or harassment. In addition, we expect suppliers to provide workers with information on how to confidentially report concerns and ensure that reporting workers are protected from retaliation.

Governance

Our oversight and monitoring of business-related human rights risks is supported by relevant internal functions and business units, including Human Resources, Global Safety & Environment; Global Supplier Management; Supply Chain Management, Ethics & Compliance; Global Security, Global Privacy Office, Information Risk Management; Enterprise Risk Management, Office of Ethics and the Office of Social Business Innovation.

GRI 412-1 Operations that have been subjected to human rights reviews

We perform supplier labor and human rights audits (using independent third-party service providers) at select direct material suppliers' facilities located in countries that are known to present an increased risk of human rights abuses (See Supplier Social Assessment section).

For more information, please see GRI 414 on page XX.

GRI 412-2 Employee training on human rights policies and procedures

Business-related human rights issues are embedded within our internal training programs to help maintain employee awareness and understanding of our company's expectations. Examples of human rights related topics covered by existing training programs include, health and safety, privacy and data protection, harassment and discrimination, diversity and inclusion, as well as training that explains and how to confidentially report concerns, emphasizing the importance of speaking up. Completion of assigned training is closely monitored and reported.

For more information on our training and development programs, please see GRI 404 on page XX.

GRI 412-3 Investment agreements and contracts that include human rights clauses or underwent screening

Agreements and contracts

Our Global Supplier Management Group (GSMG) function oversees contract development and execution activities associated with the sourcing and selection of our suppliers of goods and services. (See Supplier Social Assessment section).

Through our standard contracts and agreements, we seek a written commitment from suppliers to respect and abide by the principles set forth in our company's Business Partner Code of Conduct (BPCC).

Our Business Partner Code of Conduct specifies that business partners are required to support and respect the protection of internationally proclaimed human rights and ensure that they are not complicit in human rights abuses.

Supplier social assessment

GRI 414 Supplier social assessment

Supplier due diligence assessment for labor practices and human rights

We respect human rights and support transparency in our supply chain. We are committed to upholding the PSCI Principles, and we require our suppliers to operate in compliance with all applicable laws. We have a formal program led by our Global Supplier Management Group (GSMG) to evaluate the risks for labor and human rights (LHR) in our supply chain.

Our policies

Our policies serve as our standards of conduct for engaging with stakeholders. They are founded on our Code of Conduct (Our Values & Standards) and are used to navigate and guide our decisions. They help us identify, address, and mitigate risks.

For information on our policies, please visit our Policies & Positions and ESG Policies and Resources page.

Human rights and labor risks

We recognize that companies with supply chains that extend into high-risk countries potentially face greater LHR risks. Our company can be exposed to these risks through our supply chain, as some of our third party suppliers and service providers operate in higher risk countries.

To help manage and address potential risks associated with third-party business relationships, GSMG has an established a cross-functional, third-party risk management committee and program. LHR risks are considered as part of our third-party risk management activities. We also recognize that potential risks may exist beyond Tier 2 suppliers. During 2020, we worked to detect and address the risks in our supply chain by:

Supplier selection: Selecting suppliers that are socially responsible and who share our company's commitments to ethics and integrity. We strive to obtain the services, goods, active ingredients, components, finished goods or other products in a way that is lawful and fair.

Expectations: Setting and communicating our expectations of suppliers, including those related to child labor, forced labor, and human trafficking. We use our Business Partner Code of Conduct to communicate our expectations. It has been translated for all counties in which we operate.

Supply chain mapping: Mapping our supply chain to identify which of our suppliers operate in countries that are known to present a significant risk of LHR issues. We use this information to help us decide upon the level of due diligence that may be necessary.

Due diligence: Conducting appropriate supplier due diligence to help determine the level of risk presented by suppliers, including potential new (prospective) suppliers as well as our existing suppliers.

Our supplier due diligence process for LHR targets direct materials suppliers, including external manufacturing suppliers and contract manufacturing organizations, regardless of their geographic location. A self-assessment questionnaire is used to gather information on freely chosen employment, child labor, employment practices, employee disclosures, fair treatment, wages, benefits, and working hours.

Suppliers' responses are used to judge whether that supplier has programs and/or procedures in place to address potential risks for labor and human rights, including modern slavery and human trafficking. The information gathered as part of due diligence is used to determine the acceptability of suppliers' local practices. Results are then applied by GSMG to inform our supplier selection and risk management processes.

Contracts: Seeking written commitment from suppliers to respect the principles set forth in our Business Partner Code of Conduct through our contracts/agreements. Our contract templates contain a BPCC compliance clause, that includes provisions related to modern slavery.

Auditing: Performing LHR audits at select supplier facilities to verify their conformance with our company's expectations (as stated in our BPCC), and by working with them to address identified non-conformances. We use independent third party audit firms to perform announced LHR audits at suppliers' facilities. When preparing our audit schedule, we consider the industry risk, the category of materials supplied, the country in which the supplier operates, and results of past due diligence.

Remedial actions: Tracking and reporting (to senior management) on the closure of remedial actions taken by suppliers to address identified non-conformances (gaps/concerns) revealed by supplier LHR auditing.

Monitoring: Assigning relationship managers from within GSMG to oversee and monitor the performance of key suppliers. We continue to hold suppliers accountable for meeting their contractual obligations.

Governance: Using our Third Party Risk Committee to help govern and oversee the management of risks associated with third party relationships. This committee is chaired by our company's SVP for Global Procurement. The role of our Third Party Risk Committee (and associated Third Party Risk Team) is to assist senior leadership by providing independent and objective oversight, monitoring and reporting in relation to the risks presented by third parties.

Engagement: Engaging and seeking input from relevant stakeholders, including GSMG, Ethics & Compliance, Legal, Global Safety and Environment, and Office of Social Business Innovation.

Collaboration: Working with PSCI to develop training, tools, and maturity models and share knowledge across our industry and with our suppliers.

Training: Training GSMG professionals with responsibility for supplier selection, oversight and monitoring, including the assignment of online courses:

- Business Partner Code of Conduct
- Mitigating Modern Slavery Risks in Supply Chains
- Third Party Risk Management

In 2020, we worked with PSCI to develop and provide suppliers training:

- Forced Labor & Modern Slavery
- Operationalizing the PSCI Human Rights Principles
- Human Rights Risks
- Responsible Sourcing of Ingredients

In addition, 14 Material Specific Human Rights and Environmental Impact Assessment guides were developed. The training and tools are provided to suppliers through PSCI and to our employees on an internal webpage.

Next steps

We will continue working on our efforts to identify, assess, and address LHR risks within our operations and supply chains. These efforts will include:

- Investigating all reported concerns promptly
- Conducting supplier labor and human rights due diligence to identify and address risks
- Auditing select suppliers to verify conformance with standards for LHR
- Holding suppliers accountable for addressing non-conformances revealed by LHR audits
- Conducting a Human Rights Compliance Assessment (HRCA) using Danish Institute assessment tool
- Participating in the activities/initiatives of PSCI's Human Rights and Labor Sub-Committee

GRI 414-1 New suppliers screened using social criteria

Please see GRI 102-9 on page XX for additional information on our supply chain risks and associated KPIs.

Public policy

GRI 415 Management approach

The Merck Political Action Committee (PAC) engages in the political process, at both the federal and state levels, to educate policymakers, lawmakers, and candidates on policy issues critical to our industry and our company's core mission to invent new medicines and vaccines to save lives. The Center for Political Accountability has recognized the Merck Political Action Committee as a Trendsetter in their annual CPA Index of Corporate Political Disclosure & Accountability report.

We continue to make bipartisan contributions that are carefully considered on a case-by-case basis. In establishing our PAC political giving priorities, our Contributions Committee considers various factors to prioritize candidates' who support policies that enhance innovation and patient access to health care.

GRI 415-1 Political contributions

We are committed to participating constructively and responsibly in the political process, and to providing clarifying analysis and information regarding the issues that affect our business and patient care.

In 2020, we contributed a total of $985,450 to support the campaigns of 562 candidates for state-level offices in 27 states plus the District of Columbia. We also supported state legislative leadership committees of both parties, industry-affiliated PACs, and national organizations representing elected state officials that meet periodically to discuss policy issues. Our representatives involved in state-government-affairs activities made the recommendations for specific contributions based on the budget and priorities approved by the Contributions Committee.

Outside legal counsel conducted a thorough review of all proposed contributions to ensure that they were permitted under state law. Final approval was provided by the Corporate Secretary.

The only other country in which we provide corporate contributions to candidates or political parties is Australia. These contributions are subject to the same policies and governance procedures discussed above.

For more information on our political contributions, please visit our Transparency Disclosures page on Merck.com.

Customer health & safety

GRI 416 Management approach

Management approach

Our quality strategy is focused on maintaining sustained quality and compliance excellence through a digitally enabled Quality Management System (QMS), oversight and periodic review of our quality performance, a Quality Management Maturity (QMM) mindset, and a learning culture. Our quality strategy is a key enabler to ensuring patient safety, and the overall quality and continuous supply of our products.

We operate in a highly complex and ever-changing regulatory landscape driven by many different factors, including novel scientific discoveries and technological advancements. Specifically, we are using and exploring new technological advancements such as integrated IT tools, artificial intelligence (AI) and streamlined digital platforms to further enhance how we manufacture high-quality products.

We apply and adhere to a strict set of quality standards, and we have policies and procedures in place to identify, measure, control and sustain product quality excellence.

Our Global Quality Compliance organization is responsible for establishing the standards to ensure that all of our company's products are manufactured, tested, released and distributed in compliance with regulatory requirements.

We continuously strive to improve these standards in order to enhance procedures and ensure ongoing compliance with current Good Manufacturing Practices (cGMPs).

We provide appropriate and ongoing training on cGMP for our employees, so they are prepared to perform their duties effectively. Our quality system not only ensures that all applicable employees are trained, but also monitors the effectiveness of the training provided.

Our company's medicines and vaccines are widely tested before they are approved for marketing. This testing is governed by a comprehensive regulatory scheme and by our research policies. We assess the safety of our products in rigorous nonclinical and clinical trials prior to seeking regulatory approval. Following approval of our drugs, vaccines or devices, the company continues to monitor their safety profiles.

Our company's chief medical officer (CMO) holds overall responsibility for the benefit:risk determination of our pipeline and marketed products, provides medical oversight for all clinical programs, supervises the development and implementation of medical policies (including those related to data transparency and the sharing of clinical data), and has responsibility for the design, execution and implementation of pre-registration expanded access ("compassionate use") programs.

Our company's Global Clinical Safety and Pharmacovigilance (GCS&PV) function manages a global system for the collection, review and reporting of Adverse Experience (AE) reports received by our company worldwide, and for the continuous assessment of product safety. Our company's chief safety officer holds overall responsibility for the safety of our products.

Our industrial hygiene risk assessments require evaluation of the effectiveness of control measures. Risk-based exposure monitoring is also conducted to verify the effectiveness of installed engineering controls, and improvements are made as needed. We use conservative safety factors to set low de minimis levels for environmental releases until we have sufficient data to fully understand their impacts on aquatic organisms. Levels are reviewed and updated as new data become available.

GRI 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services
SASB 250a.1	Products listed in the FDA's MedWatch Safety Alerts for Human Medical Products database
SASB 250a.2	Fatalities associated with products as reported in the FDA Adverse Event Reporting System
SASB 250a.3	Recalls issued, and total units recalled

Quality and product safety	2016	2017	2018	2019	2020
Number of product recalls in the United States[1]	1	0	2	1	**2**
Percentage of sold units recalled during a given year (recall rate globally)[1]	0.01%	0.01%	0.14%	0.01%	**0.50%**

[1] Definition of Recall Classifications: http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm049070.htm#RecallClassifications.

Counterfeit products

We invest in an industry-leading, rigorous, and intelligence-led product-integrity strategy that is solely focused on protecting patients from the harm associated with counterfeit, diverted and other illicit medicines. Our company's Global Security Group oversees the global Product Integrity strategy and leads its execution. The strategy seeks to protect our patients and our company's reputation from the negative impacts of counterfeit and illicit medicines using a three-pronged strategy focused on:

- Securing the supply chain,
- Investigations and enforcement
- Raising public and stakeholder awareness

Our efforts in public and stakeholder awareness involving raising awareness of the risks posed by counterfeit medicines, and advocate for increased enforcement to shape relevant regulatory requirements.

In 2020, we continued our commitment to increasing our focus in this area and have strategically enhanced our ability to make a long-term impact on patient safety through various education campaigns.

We are committed to cooperating with relevant government agencies, other pharmaceutical manufacturers, wholesalers, distributors, health professionals, consumer groups and key related organizations in fighting the problem of counterfeit pharmaceutical products and in educating the public about the risks of counterfeit products and how to protect against them.

This effort includes a multipronged approach to communicating the threat that counterfeit medicines pose and to mitigating this threat as effectively as possible, while recognizing that it cannot be entirely eliminated.

Collaboration and information-sharing in order to raise public and stakeholder awareness of the issue and risks are a crucial focus of our Product Integrity program. Through active partnerships with other

Anti-counterfeiting[1]	2016	2017	2018	2019	2020
Investigations of suspected counterfeit products[1]	134	137	274	560	**572**
Substantiated cases of counterfeit products	102	76	226	210	**71**

[1] Prior-year data have been adjusted to reflect the current status of each event as of April, 2021.
[2] Evidence from ongoing investigations of suspected counterfeit products can result in recategorization.

pharmaceutical companies, and with organizations focused on security, patient safety and public health, we provide effective advocacy on high-priority anti-counterfeiting policy initiatives.

These collaborative efforts support the production of reports, whitepapers and data-circulation initiatives, as well as promote the intelligence sharing necessary to combat threats from counterfeit medicines.

The following table details the number of new suspected and substantiated counterfeit events in 2020, as well as the number of events introduced in previous years and the subsequent outcome for these events. The data below reflects the current status of each event, as of April 2021.

Throughout 2020, Global Security addressed 1,947 product integrity events in 86 countries, involving counterfeit, diversion, supply chain security, tampering, financial integrity and brand security (non-MSD, unapproved generic product). Approximately 23 percent of these events have been proactively investigated by Global Security to identify new or emerging product integrity threats, or to further characterize and mitigate known threats.

We enable meaningful enforcement actions as a key strategic priority, and in 2020, our product integrity activity led to 52 arrests and the seizure of more than 2,300 units of counterfeit or illicit products of our company. There were 23 prosecutions resulting from product integrity investigations in 2020.

Another crucial aspect of investigations is the forensic analysis of questioned products. This forensic testing is aimed at concluding whether a questioned product is counterfeit, diverted, or otherwise illicit. Counterfeit products are characterized in order to gain further intelligence and understanding of the counterfeiters and the threats to public health. Our company also has forensic detection devices in the field to analyze and detect counterfeits in regions around the world.

As counterfeiters improve their skills and techniques, our forensic scientists have pioneered the use of several analytical tools for the detection and characterization of counterfeit medicines and continue to explore new analytical tools that would increase their forensic testing capabilities. Lab findings are shared with regulatory and/or law-enforcement agencies, and may be used to support subsequent enforcement actions and legal proceedings.

There were 402 unique, questioned samples received as evidence and prepared for forensic testing in relation to active events in 2020. As part of our proactive awareness program, throughout 2020, Global Security trained approximately 4,730 law-enforcement personnel in more than 50 countries regarding the patient safety danger related to counterfeit and diverted medication.

Global Security also launched an internal training program on the Counterfeit, Diversion and Tampering (CDT) reporting process in late 2017. To date, more than 67,000 employees and contractors have completed this training globally.

Supply chain security and serialization

Our proactive focus on managing supply chain security risk is based on our careful implementation and management of strict policies and procedures designed to protect the legitimate distribution of our company's products. We require customers to purchase our products directly from our company or from authorized distributors listed publicly on our corporate website.

We maintain our commitment to ensure compliance with established company policies, standards, and procedures throughout the supply chain by identifying vulnerabilities and threats to the supply network. Resources are positioned globally to monitor and manage our security programs and investigate incidents when they occur.

As a certified Importer under the Customs Trade Partnership Against Terrorism (CTPAT) Program, we are validated by U.S. Customs and Border Protection as an elite Tier 3 Member recognized as implementing best practices in supply chain security. This adds an important layer to the security of our products and materials imported to the United States.

Serialization—adding a 2D barcode with a unique identification number on each package that goes to market—is one of the tools we are investing in to secure our supply chain and prevent or detect counterfeiting. A serial number on individual packages will enable anyone along the supply chain—from a distributor to a pharmacist to a patient—to scan the code and verify it as a serial number corresponding to a genuine product of our company. Serialization adds a robust layer to the company's product security platform. When associated with a regulatory mandate that specifies effective implementation and reporting to a national database, this method of product tracking can become a more meaningful product security tool.

Many jurisdictions around the world are requiring serialization on pharmaceutical packages or are considering such mandates. Serialization is required today in China, Turkey, Argentina, South Korea, Nigeria, India, Saudi Arabia, the Middle East, the U.S., EU, UK, Norway, Iceland, Switzerland, Liechtenstein and Russia, and will soon be required in Indonesia, Brazil, South Africa and Pakistan. Each country's regulations are different, making it very challenging for our packaging sites and distribution networks to meet these diverse and intricate requirements with additional complexity as reporting requirements are phased in.

We launched the Global Product Serialization Initiative in 2012, with the goal of meeting these varying requirements in a robust, standardized and effective way based upon GS-1 standards. We are working with industry associations and regulatory authorities to help shape these new requirements, and advocate for simple, standardized and common-sense regulations that can be effective at protecting against counterfeit medicines.

In addition to our compliance with regulatory requirements related to serialization, we are also exploring opportunities to deploy voluntary serialization and secondary authentication technologies to further enhance the security and traceability of our products. These multi-factor authentication systems would be enabled by blockchain nodes and applications that allow for secure and immutable product tracing that could be accessed by all supply chain partners and end users. We are currently running several proof-of-concept and pilot studies involving these emerging technologies, as well as participating in active industry associations, such as PharmaLedger, to further develop and apply these digital solutions.

Clinical trial site monitoring, design, conduct and oversight

Our company has long been committed to sharing the results of our clinical trials, regardless of their outcome, in a timely manner. If a clinical trial of a marketed product is terminated early for safety reasons, we will promptly disclose medically important information to regulatory authorities and the public, update the status on clinical trials.gov within 30 days, and submit a manuscript to a journal (or post a summary online) within 12 months after the last patient's last visit occurs. If the trial was terminated for efficacy reasons, the results will be disclosed within 12 months after the last patient's last visit occurs. Summaries of terminated trials will provide information about patient disposition, safety and adverse experiences, as well as an explanation as to why the trial was terminated early.

We comply with all applicable laws and regulations associated with the registration of clinical trials in publicly accessible registries and subsequent posting of the results from these trials. We have put into place the processes necessary for compliance with the Food and Drug Administration Amendments Act of 2007 and the European Clinical Trial Directive 2001/20/EC, including those related to clinical trial registration and posting results.

For those who analyze, report or publish the results of clinical trials, a clinical trial registry also provides information on trials in progress and the ability to track such trials over the course of development. Company-sponsored and -conducted clinical trials involving patients assigned treatment with investigational and marketed products are registered at trial initiation on www.clinicaltrials.gov, www.clinicaltrialsregister.eu and www.encepp.eu.

In accordance with our public policy position statement, all investigational studies in human subjects are conducted in a manner consistent with laws, regulations and guidelines for the protection of human subjects, including those issued by the International Council for Harmonisation Good Clinical Practice (ICH GCP). However, individual country regulations and guidelines should remain the primary determinant of specific requirements for the conduct of medical research.

We have a commitment, where appropriate, to the study of diverse patient populations, including underrepresented groups, women and children, in our clinical trials in all regions of the world. As a result, we strive to obtain information among diverse populations, ensuring a thorough evaluation of the safety and efficacy of our medicines and vaccines. These efforts allow us to seek regulatory approvals throughout the world and thereby offer our medicines globally to patients who need them.

In addition to complying with our company's global standards, the conduct of our clinical trials adheres to the International Council for Harmonisation Good Clinical Practice standards and to the principles that have their origin in the Declaration of Helsinki.

When appropriate, an internal standing Data-Monitoring Committee (DMC) of our research laboratories' senior managers reviews unblinded data from ongoing trials in a pre-specified, scientifically acceptable manner. The goals of the DMC are to protect the safety of trial participants and assess whether the risk/benefit profile is favorable.

The DMC's recommendations are communicated internally to relevant scientists and can be distributed externally to clinical investigators, review boards or regulatory agencies, as appropriate.

Phase II-V clinical trials patients by region	2016	2017	2018	2019	2020
Asia Pacific	25%	15%	22%	28%	**42%**
Central & Eastern Europe, Middle East & Africa	12%	7%	7%	8%	**8%**
European Economic Area	36%	43%	21%	33%	**20%**
The Americas	10%	6%	9%	7%	**15%**
United States	17%	29%	41%	24%	**15%**

Trial disclosures activities	2016	2017	2018	2019	2020
Manuscripts of clinical trial results and related papers submitted to peer-reviewed journals	152	133	153	290	**156**
Number of GCP/PV inspections conducted by regulatory agencies worldwide	103	128	96	99	**52**

GCP/PV inspections	2016	2017	2018	2019	2020
GCP/PV inspections by regulatory agencies of the company or clinical trial investigators that led to significant fines, penalties, warning letters or product seizures[1]	–	0	0	0	**0**

[1] Complete response letter received for Sugammadex (MK-8616) in 2013; complete response letter received for Januvia (sitagliptin; MK-0431) in 2016.

Please visit the U.S. Food & Drug Administration's (FDA) MedWatch website for more information on product safety alerts. You may visit the FDA's Adverse Event Reporting System (FAERS) website for up-to-date information on fatalities associated with product use.

For more information on our approach to clinical trials, please visit the Clinical Trials page on our corporate website.

Marketing & labeling

GRI 417	Management approach

Management approach

Our company's chief medical officer (CMO) holds overall responsibility for the benefit:risk determination of our pipeline and marketed products. In addition, the CMO provides medical oversight for all clinical programs, supervises the development and implementation of medical policies (including those related to data transparency and the sharing of clinical data), and has responsibility for the design, execution and implementation of pre-registration expanded access ("compassionate use") programs.

Our company's Global Clinical Safety and Pharmacovigilance (GCS&PV) function manages a global system for the collection, review and reporting of Adverse Experience (AE) reports received by our company worldwide, and for the continuous assessment of product safety. Our company's chief safety officer holds overall responsibility for the safety of our products.

Clinical safety and risk management

Clinical Safety and Risk Management (CSRM) leads the Risk Management & Safety Teams (RMSTs) teams for all products, from the beginning of Phase 2b through the end of the product life cycle. CSRM is responsible for the development of a proactive clinical safety risk-management strategies, including the Risk Management Plan, which is a regulatory requirement in many countries for marketed drugs and vaccines.

GRI 417-1	Requirements for product and service information and labeling
GRI 417-2	Incidents of non-compliance concerning product and service information and labeling
GRI 417-3	Incidents of non-compliance concerning marketing communications
SASB 270a.1	Monetary losses as a result of legal proceedings associated with false marketing claims
SASB 270a.2	Code of ethics governing promotion of off-label use of products

The label in our product packaging contains information on possible side effects and, if appropriate, how to avoid some potential health problems. We include contact details in our product packaging and on our corporate website for patients, caregivers and health professionals to report adverse experiences in the United States. Outside the United States, adverse events are reported in accordance with any additional local country laws and practices.

Depending on labeling revisions and their context, our company or regulatory authorities may determine, in consultation with regulatory authorities, that more extensive communications are appropriate. In those situations, we work with regulatory authorities to communicate to health care professionals in a timely manner so that they can inform patients through appropriate mechanisms. Communications to health care professionals may include "Dear Health Care Provider" letters and media statements.

Product label reviews

The ongoing oversight and monitoring of our product labels are a major focus of our safety efforts. Our label review teams monitor information on our products and work with our product Risk Management & Safety (RMS) teams to develop or update product labeling. We regularly communicate relevant information to regulatory authorities worldwide.

Health literacy

There are many examples of health literacy in action across our company's product lifecycle as seen in our approaches to clinical trials, informed consent, diversity in trials, medication labeling for

patients, instructions for use, packaging, and patient education. Beginning in 2019, new clinical trials addressed cultural competence and included training for investigators in teach-back, a way to confirm understanding by asking participants to repeat information in their own words. Early in 2020, our commercial organization launched a process to integrate health literacy reviews more consistently across all therapeutic areas.

We have nine FDA approved health literate patient labels which were developed with input from patients across a range of health literacy levels.

U.S. Merck Medical Forums

We deliver balanced medical and scientific information to health care professionals within the U.S. through our company's promotional Merck Medical Forums, which are conducted by contracted external speakers. Speakers are selected based on defined, objective criteria that are directly related to the identified educational purpose of the Medical Forum. By attending one of our Merck Medical Forums, health care professionals participate in medical education on therapeutic and health care industry topics. The goal of this education is to provide medical education to targeted HCPs.

With our strict standards for conducting Merck Medical Forums, we comply with the PhRMA Code on Interactions with Health Care Professionals as well as with U.S. Food and Drug Administration (FDA) regulations, which ensures that product information is appropriately balanced to include the product's potential benefits and risks, and is consistent with approved product labeling.

We believe that our marketing, sales and advertising activities make an important contribution to medicine by informing our customers of treatment options based on the most recent scientific information and findings from rigorous clinical studies. Our sales and marketing practices are governed by external laws and regulations and industry codes of conduct, and by our own global Code of Conduct, our corporate policies and procedures, and our ethics and compliance program.

For more information, please see our answers to GRI 417-1 and GRI 417-2 on page XX.

Customer privacy

GRI 418 Management approach

Management approach

Information about our company, products and people is one of our most valuable assets. We are committed to ethical use, management and protection of information.

Our commitment applies not only to our company's information, but also to the information entrusted to us by others. Our tools, processes and procedures ensure that we appropriately collect, use and safeguard information throughout its life cycle to ensure integrity of information and to prevent unauthorized access and disclosure. We have developed and continue to improve upon a comprehensive, global, state of the art information security and cyber resiliency program to enable our company to fulfill its mission: inventing for life.

There is increased pressure for companies to adopt the EU General Data Protection Regulation (GDPR) as the basis for their own privacy policies and programs. Our company is well positioned in that we have based our global program on the GDPR. In addition, our Privacy program is flexible and adaptable to be compliant to new laws and regulations that take effect in the jurisdictions where we conduct business. Examples include the California Consumer Privacy Act (CCPA) and California Privacy Rights Act (CPRA) in California, the Consumer Data Protection Act (CDPA) in Virginia and major revisions to the Data Protection Acts in Singapore, Brazil, and Switzerland.

In addition, there is increased regulatory scrutiny and interest in companies that seek to collect and monetize personal information without full transparency and permission from data subjects. Regulators will continue to increase requirements in these areas and levy fines. Again, we believe that we are well positioned for these changes due to the deployment of a comprehensive closed-loop privacy program and our active engagement with regulators around the world.

The Global Privacy Office reports into our Chief Ethics & Compliance Officer who reports directly to our CEO. Oversight of the privacy program is conducted within the Privacy and Data Protection Board

(PDPB). This is a cross functional board that connects to the Corporate Compliance Committee. The PDPB meets quarterly.

We are increasingly reliant on third party partners and service providers to assist us in our global operations. Just as we need to pay close attention to privacy and data protection, so do the third parties that comprise our supply chain. Our company employs a robust third-party due diligence process to ensure that we only do business with reputable third parties who share our values and standards.

Our approach is one of accountability and transparency. The heart of this program is a leveraged, world class Global Privacy Program that manifests itself throughout the world as a network of over two hundred Privacy Stewards deployed around the globe. Program maturity is measured through a combination of annual privacy self-assessments at the entity and organization level and by comprehensive Privacy Audits conducted by Internal Audit.

Our company also provides annual mandatory cybersecurity training to communicate and reinforce the guidelines in the Information Security Standards Handbook and our commitment to a strong cybersecurity culture. We have established a systematic approach for ensuring employees can understand and comply with company policies. Our company developed a robust cybersecurity training and awareness program that frequently and consistently delivers both compulsory and voluntary learning opportunities designed to encourage employees to make security-aware decisions regarding our company's information security risks. Topics include, but are not limited to, information protection, identity, email, browsing and mobile security. Employees are also expected to maintain an up to date record of their qualifications that detail relevant cybersecurity work experience, skills, certifications, and internal, industry or vendor-provided training they receive.

Global privacy program

Over the past 20 years, we have developed and continually improved a comprehensive global privacy program that promotes organizational accountability for privacy, data governance, and data protection across our business and with our collaborative partners and suppliers.

We were the first company in the world to obtain regulatory approval in the European Union (EU) for Binding Corporate Rules (BCRs)

Our global privacy values

We have established a set of privacy values to guide all of our privacy, data stewardship and data protection decisions. These core tenets serve as the foundational ethical framework for our comprehensive global privacy program and our compliance with the continually evolving legal and regulatory standards for privacy and data protection.

Respect

We recognize that privacy concerns often relate to the essence of who we are, how we view the world and how we define ourselves, so we strive to respect the perspectives and interests of individuals and communities and to be fair and transparent in how we use and share information about them.

Prevent harm

We understand that misuse of information about people can create both tangible and intangible harm for individuals, so we seek to prevent physical, financial, reputational and other types of privacy harm to individuals.

Trust

We know that trust is vital to our success, so we strive to build and preserve the trust of our customers, employees, patients and other stakeholders in how we respect privacy and protect information about people.

Comply

We have learned that laws and regulations cannot always keep pace with the rapid change in technologies, data flows, and associated shifts in privacy risks and expectations, so we strive to comply with both the spirit and the letter of privacy and data protection laws and regulations in a manner that respects individuals, instills trust, and drives consistency and operating efficiency for our global business operations.

based in part on our existing Asia Pacific Economic Cooperation (APEC) Cross-Border Privacy Rules (CBPRs) certified program.

This achievement demonstrates that organizations can rely on common internal standards and processes to govern international data transfers across both the EU and APEC regions to simplify their ability to address the growing regulatory challenges in this area.

Our holistic approach to privacy has its origins in biomedical research ethics and the protection of participants in the research studies that we sponsor and conduct. We have adapted human subject research ethics standards for risk-benefit analysis, transparency, anonymization, coding and prior review to other activities and processes involving data about people.

GRI 418-1 Substantiated complaints regarding breaches of customer privacy and losses of customer data

We have a well-established process by which privacy incidents can be reported to the Global Privacy Office and be investigated. The first step of this process is to verify the facts reported and to substantiate the concern. In 2020, we received 250 substantiated concerns. This marked a substantial increase over the number seen the previous year. This increase can be attributed to the deployment by the company of more sensitive network monitors. In 2020, none of the reported Privacy Incidents rose to the level requiring notification.

Global privacy program	2016	2017	2018	2019	2020
Number of concerns regarding privacy practices, breaches of privacy and losses of personal data that were substantiated[1]	227	123	315	29[2]	**250[3]**
Number of privacy breaches requiring notification by Merck & Co., Inc., Kenilworth, N.J., U.S.A., to individuals or government authorities	1	0	2	2	**0**

[1] Privacy concerns reported here include all concerns about our privacy practices reported to our company's Privacy Office and substantiated or verified. Verified concerns are investigated as part of the company's Incident Management Process which includes a determination of whether regulatory or data subject notification is required.
[2] Change in reporting criteria to exclude non-privacy, quality related issues from the data.
[3] Increased sensitivity of network traffic monitors.