



# Merck Sustainability Financing Framework

# December 2021

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# 1. Introduction and Background

# Company Overview

For more than 130 years, Merck & Co., Inc., Kenilworth, NJ, USA ("Merck" or the "Company")—known as MSD outside of the U.S. and Canada—has been inventing for life, bringing forward medicines and vaccines for many of the world's most challenging diseases in pursuit of our mission to save and improve lives.

We are a global health care company that delivers innovative solutions through our prescription medicines, vaccines, biologic therapies and animal health products. The company's operations are principally managed on a products basis and include two operating segments: Pharmaceutical and Animal Health.

Our company manufactures, packages and distributes products to more than 140 countries around the world.

Our facilities, along with our external contractors, suppliers and partners, make up an integrated, interdependent global manufacturing network that is committed to delivering compliant, reliable supply to customers and patients on time, all the time and every time.

# Merck's ESG Approach

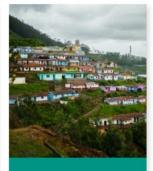
We are committed to a high level of environment, social and governance (ESG) performance, which helps us drive sustainable value for our business and society. Our ESG strategy ensures that we apply our global resources and investments to ESG priority areas that matter most: expanding access to health, developing and rewarding a diverse, inclusive and healthy workforce, protecting the environment and operating with the highest standards of ethics and values. Through these four focus areas, we continue to challenge ourselves to innovate, make ambitious commitments and form collaborative partnerships to solve major global issues.



# Access to health In collaboration with key stakeholders, we have a role to play in helping to ensure our science advances health care, and our products are accessible and affordable to those in need.



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



sustainability
A healthy planet is essential to human health and the sustainability of our business.

Environmental



Through our unwavering commitment to transparency, we earn the trust and confidence of our stakeholders.

Ethics & values

### **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.

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.

The **Public Policy and Responsibility Council (PPRC)** is a high-level forum for strategic input and guidance on our ESG approach, social business investments, 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.

Merck recently established the **ESG Strategy Management Team**, comprising functional experts throughout our company, which helps to drive our long-term ESG strategy. 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.

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 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 Team and the Board's Governance Committee, is responsible for publishing our annual ESG Progress Report.

### Merck's Policies, Resources and ESG Risk Management

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

Merck implements extensive policies, resources and guidelines that govern the work we do every day. Merck's <u>Code of Conduct</u> is available in 23 languages and applies to all employees worldwide. We abide by strict ethical standards in our own operations, and we insist on equivalent standards from our suppliers. Our <u>Business Partner Code of Conduct</u> is based on our company's Code of Conduct, as well as on the Pharmaceutical Supply Chain Initiative (PSCI)'s Industry Principles and the Ten Principles of the UN Global Compact.

We also 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. 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.

### **ESG Reporting**

Merck is committed to holding ourselves accountable to those we serve through our governance and reporting practices. Merck reports on ESG initiatives and progress annually and our 2020/2021 ESG Progress Report¹ uses widely recognized frameworks: the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), World Economic Forum's (WEF) Stakeholder Capitalism Metrics, and Culture of Health for Business (COH4B). Additionally, Merck commissioned the firm, ERM, to conduct an independent third-party review of Merck's 2020 greenhouse gas (GHG) and water inventories and provided limited assurance for the data submitted to CDP and for inclusion in our report.² Merck's ESG Progress Report also reflects our support for the 10 Principles of the UN Global Compact and recognizes the important role we play in helping to meet the UN Sustainable Development Goals (SDGs).

# **ESG Materiality and Goals**

Understanding and prioritizing the ESG issues that matter most to our business and stakeholders enables us to focus and report on them effectively and transparently. We have used our most recent ESG materiality assessment to identify a new set of ESG goals across our four pillars.

<sup>&</sup>lt;sup>1</sup> https://www.merck.com/wp-content/uploads/sites/5/2021/09/Merck-ESG-Report.pdf

<sup>&</sup>lt;sup>2</sup> https://www.merck.com/company-overview/responsibility/esg-resources/



# Access to Health

Further advance health equity by reaching 30 million people in low- and middle-income countries and in U.S. underserved populations with our social investments, by 2025.<sup>3</sup>

Reach at least 75% of countries around the world annually with our products.<sup>4</sup>

Enable 100 million more people to access our innovative portfolio globally, through access strategies, solutions and partnerships, by 2025.<sup>5</sup>



# **Employees**

Increase representation in senior management roles, <sup>6</sup> by 2024:

- Women globally to 40%, up from 31% in 2020.
- Black/African Americans in the U.S. to 10%, up from 3% in 2020.
- Hispanic/Latinos in the U.S. to 10%, up from 5% in 2020

Maintain or exceed current inclusion index score, by 2025.<sup>7</sup>

Maintain or exceed our current employee engagement index score, by 2025.8



# **Environmental Sustainability**

Achieve carbon neutrality across our operations by 2025 (Scopes 1 & 2 emissions).<sup>9</sup>

Reduce our operational greenhouse gas (GHG) emissions (i.e., Scopes 1 & 2) 46% by 2030, from a 2019 baseline.

Source 100% of our purchased electricity from renewables by 2025. 10

Work with our suppliers to achieve a 30% reduction in Scope 3 GHG emissions by 2030, from a 2019 baseline.



# Ethics & Values

Foster a "Speak Up" culture by maintaining or exceeding our current percentage of employees responding favorably to the "Speak Freely" question in the Pulse survey as an annual average.<sup>11</sup>

Maintain 100% compliance to regulatory requirements for active incident monitoring, risk/harm analysis and on-time notification of data breaches.<sup>12</sup>

<sup>&</sup>lt;sup>3</sup> Social investments include Merck's philanthropic partnerships, programs and impact investments. Underserved populations are defined as those that face health disparities due to disadvantages related to insurance status, social determinants of health, race, ethnicity, gender identity/sexual orientation, age and/or language preference.

 $<sup>^{4}</sup>$  Includes reach for all products. Countries are as defined by the World Bank Country and Lending Groups.

<sup>&</sup>lt;sup>5</sup> Access strategies, solutions and partnerships includes patient assistance programs, voluntary license agreements, and partnerships. Enable more people is defined as implemented and launched in market and is in comparison to the baseline in 2020. Access is defined as products registered, launched and available in the market. Portfolio of products include Oncology, Vaccines, HIV and COVID-19 treatments if approved.

<sup>&</sup>lt;sup>6</sup> Senior management roles reflect Band 700.

<sup>&</sup>lt;sup>7</sup> The inclusion index is the average favorability score for employees' responses to three items in the employee pulse survey (manager supports inclusion, sense of belonging, leaders value perspective).

<sup>&</sup>lt;sup>8</sup> The Employee Engagement Index is the average favorability score for employees' responses to items in the employee pulse survey (employees recommend Merck).

<sup>&</sup>lt;sup>9</sup> Scope 1 emissions are direct greenhouse (GHG) emissions that occur from sources that are controlled or owned by an organization (e.g., emissions associated with fuel combustion in boilers, furnaces, vehicles). Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat or cooling. Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly impacts in its value chain.

<sup>&</sup>lt;sup>10</sup> 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.

<sup>&</sup>lt;sup>11</sup> Favorable response indicates the percentage of respondents who gave the top two favorable response options on a five-point agreement scale.

<sup>&</sup>lt;sup>12</sup> Regulatory requirements differ by region.

Two of the environmental sustainability goals above are science-based GHG emissions reduction targets and have been validated by the Science-Based Targets initiative (SBTi)<sup>13</sup>:

- Reduce absolute scope 1 and scope 2 GHG emissions 46% by 2030 from a 2019 base year (including biogenic emissions and removals from bioenergy feedstocks)
- Reduce absolute scope 3 GHG emissions 30% by 2030 from a 2019 base year

### Access to Health

With strategic input and guidance from our PPRC, our global approach to access is guided by our Access to Health Guiding Principles<sup>14</sup>, which span the areas of discovery and invention, availability, affordability, and strengthening systems and addressing inequity. Strategies and actions to enable access are embedded across Merck.

Merck continues to expand patient access and in FY2020:

- 268 million estimated people reached globally through product donation and patient assistance programs and partnerships
- 78% of countries around the world reached with our products<sup>15</sup>
- 40 countries where dedicated affordability solutions have been initiated
- 88% of the top 20 global burdens of disease targeted with our products and pipeline

### **Health Equity**

Aligned with Merck's mission to save and improve lives, we take a focused approach to addressing health equity. This approach helps us better meet the diverse needs of the populations and communities we serve, in recognition that everyone should have a fair and just opportunity to be as healthy as possible. We have a long history of promoting health equity and continue to pursue new avenues to expand our impact:

- Celebrated the 10th year anniversary of Merck for Mothers, our \$500 million investment in innovative programming that is helping to eliminate preventable causes of maternal mortality
- In 2021, we announced the creation of the Kenneth C. Frazier Award for Maternal Health Equity, a new grant award of up to \$250,000 that will be given annually to an organization in recognition of its commitment to addressing racial inequities in maternal health outcomes
- Establishing the world's first Ebola vaccine stockpile<sup>16</sup>
- Pursuing new ways to recruit and engage clinical trial participants who are racially,
   socioeconomically and demographically representative of the communities we aim to serve

# The Merck Foundation

The Merck Foundation<sup>17</sup> is a private, charitable organization established and funded entirely by Merck. It is a separate legal entity from Merck and operates independently. Our company established the Merck Foundation, or the "Foundation", in 1957. Since inception, the Foundation has contributed nearly \$1 billion dollars to support initiatives that address important global health and societal needs. It is our

<sup>&</sup>lt;sup>13</sup> https://www.merck.com/wp-content/uploads/sites/5/2021/09/Science-Based-Targets-certification-2021.pdf

<sup>&</sup>lt;sup>14</sup> https://www.merck.com/wp-content/uploads/sites/5/2021/08/Merck-Access-to-Health-Principles Update-2021.pdf

<sup>&</sup>lt;sup>15</sup> As defined by the World Bank Country and Lending Groups: <a href="https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups">https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups</a>

<sup>&</sup>lt;sup>16</sup> <a href="https://www.merck.com/news/merck-confirms-agreement-with-unicef-to-establish-the-worlds-first-global-ebola-vaccine-stockpile-with-ervebo-ebola-zaire-vaccine-live/">https://www.merck.com/news/merck-confirms-agreement-with-unicef-to-establish-the-worlds-first-global-ebola-vaccine-stockpile-with-ervebo-ebola-zaire-vaccine-live/</a>

<sup>17</sup> https://www.merck.com/company-overview/responsibility/philanthropy/

chief source of financial support for eligible nonprofit organizations and innovative programs that align with our two focus areas: health and community.

- **Health:** The Foundation invests in philanthropic programs that aim to improve the quality of health care and address barriers to accessing care for people living with noncommunicable diseases (NCDs) including Alzheimer's disease, cancer, and diabetes and HIV/AIDS
- **Community:** Through our community grants programs, we're working to enhance the health and well-being of the communities where our employees live and work

# 2. Sustainability Financing Framework

# Scope

In accordance with its strategy, Merck has designed this Sustainability Financing Framework (the "Framework"). This Framework will guide future issuances of various types of financings the Company elects to use (e.g., bonds and commercial paper, among other options (each, a "Merck Sustainability Financing")).

This Framework addresses the core components and key recommendations of the Social Bond Principles (2021), Green Bond Principles (2021), and Sustainability Bond Guidelines (2021), all of which are administered by the International Capital Markets Association (ICMA).

# Core Components:

- 1) Use of Proceeds
- 2) Process for Project Evaluation and Selection
- 3) Management of Proceeds
- 4) Reporting

# Key Recommendations:

- 1) Use of Frameworks
- 2) External Reviews

# Use of Proceeds

For each Merck Sustainability Financing, we intend to allocate an amount equal to the net proceeds to finance or refinance, in whole or in part, existing or new Eligible Social and/or Green Projects ("Eligible Projects"), which include expenditures by Merck and its subsidiaries related to one or more of the criteria listed below. The examples of projects listed below are for illustrative purposes only and no assurance can be made that disbursements for projects with these specific characteristics will be made with the net proceeds of any Merck Sustainability Financing. Eligible Projects may include those for which Merck made disbursements up to 36 months prior to the applicable Merck Sustainability Financing issuance date and new Eligible Projects financed post issuance. It is our intention to fully allocate the net proceeds of each Merck Sustainability Financing within 24 months of its issuance.

Eligible Social Project Category	Eligibility Criteria	Target Population
Access to Essential	Expenditures in medicines & vaccines,	Individuals and communities
Services -	programs, systems, facilities or equipment for	that are considered
Healthcare	or that enhance access to public, not-for-profit, free or subsidized essential products or services	underserved in access to quality essential health
	to the stated target population, including:	services, meeting one or more of the following criteria:







# Affordability and Addressing Barriers to Health

- Increasing healthy pregnancies and safer childbirth by helping to end preventable maternal deaths through quality maternity care through Merck for Mothers<sup>18</sup> programs & initiatives. Examples include:
  - MOMs (Maternal Outcomes Matter)<sup>19</sup>
  - Safer Childbirth Cities initiative<sup>20</sup>
- Product donation, medical outreach, disaster & emergency relief, or patient assistance programs. Examples include:
  - MECTIZAN Donation Program<sup>21</sup>
  - MSD Medical Outreach Program (MMOP)<sup>22</sup>
- Contributions to the Merck Foundation<sup>23</sup>, to the extent the Foundation uses such contributions to strengthen health systems and improve population health outcomes. Examples include:
  - Improving access to care for people living with non-communicable diseases<sup>24</sup>
  - o Promoting equity in HIV/AIDS care

- People in low- & middleincome countries, as defined by the World Bank
- Vulnerable and underserved people in high-income countries, as defined by the U.S.
   Department of Health and Human Services<sup>25</sup>, such as Black/African American, Latino/Hispanic, and Indigenous peoples<sup>26</sup>
- People without insurance, or unable to pay for medication
- People affected by natural disasters
- People affected by global health and/or socioeconomic crises, such as the COVID-19 pandemic<sup>27</sup>

### **Infectious Diseases**

- Research and development on products which treat diseases that disproportionately impact the target population. Examples include:
  - Antimicrobial resistance (AMR)<sup>28</sup>
  - Neglected diseases and emerging infectious diseases, as defined by the G-FINDER project<sup>29</sup>
- People in low- & middleincome countries, as defined by the World Bank
- Vulnerable and underserved people in high-income countries, as defined by the U.S.
   Department of Health and Human Services<sup>30</sup>, such as Black/African American,

<sup>18</sup> https://www.merckformothers.com/

https://www.merckformothers.com/docs/Merck MfM%20Factsheet MOMsInitiative.pdf

<sup>20</sup> http://www.saferchildbirthcities.com/

<sup>&</sup>lt;sup>21</sup> https://mectizan.org/

https://www.merck.com/company-overview/responsibility/merck-medical-outreach-program/

https://www.merck.com/company-overview/responsibility/philanthropy/

https://www.merck.com/wp-content/uploads/sites/5/2020/11/ImprovingAccesstoCareforNCDsInfographic.pdf

<sup>&</sup>lt;sup>25</sup> https://www.hhs.gov/guidance/sites/default/files/hhs-guidance-documents/006 Serving Vulnerable and Underserved Populations.pdf

<sup>&</sup>lt;sup>26</sup> The U.S. Department of Health and Human Services references race & ethnic groups in the U.S. and an equivalent standard will be used internationally where available

<sup>&</sup>lt;sup>27</sup> Expenditures look-back period limited to March 11, 2020, when The World Health Organization declared COVID-19 a pandemic: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

<sup>&</sup>lt;sup>28</sup> https://www.merck.com/wp-content/uploads/sites/5/2020/08/Delivering-on-our-Commitments.pdf

https://www.policycuresresearch.org/rd-needs-for-global-health/

<sup>&</sup>lt;sup>30</sup> https://www.hhs.gov/guidance/sites/default/files/hhs-guidance-documents/006 Serving Vulnerable and Underserved Populations.pdf

	T	T
	<ul> <li>Sexual and reproductive health issues of HPV and HPV-related cervical cancer, as defined by the G- FINDER project<sup>21</sup></li> </ul>	Latino/Hispanic, and Indigenous peoples <sup>31</sup>
Socioeconomic	Expenditures which seek to expand access and	Individuals and communities
Advancement and	benefit to the stated target population,	that are considered
Empowerment	including:	underserved, meeting one or more of the following criteria:
3 AND NELL SERIO  NEL SERIO  10 NECOLULISTS  17 PARTICULARIES  17 PARTICULARIES  17 PARTICULARIES  18 PARTICULARIES  17 PARTICULARIES  18 PARTICULARIES  19 PARTICULARIES  19 PARTICULARIES  10 PARTICULARIES  10 PARTICULARIES  11 PARTICULARIES  12 PARTICULARIES  13 PARTICULARIES  14 PARTICULARIES  15 PARTICULARIES  16 PARTICULARIES  17 PARTICULARIES  18 PARTICULARIES  19 PARTICULARIES  19 PARTICULARIES  10 PARTICULARIES  10 PARTICULARIES  10 PARTICULARIES  10 PARTICULARIES  10 PARTICULARIES  11 PARTICULARIES  12 PARTICULARIES  13 PARTICULARIES  14 PARTICULARIES  15 PARTICULARIES  16 PARTICULARIES  17 PARTICULARIES  18 PARTICULARIES  18 PARTICULARIES  19 PARTICULARIES  19 PARTICULARIES  10	<ul> <li>Sourcing from third party certified Minority and Women-Owned Business Enterprise (MWBE) suppliers, which are also small<sup>32</sup> or medium enterprises and qualify for Merck's supplier diversity program, which provides mentoring support, scholarships and other external educational opportunities for suppliers</li> <li>Employee diversity and inclusion initiatives, including employee development and up skilling programs</li> </ul>	<ul> <li>Underrepresented ethnic groups</li> <li>Women</li> <li>LGBTQ+</li> </ul>
	- Health literacy programs 33,34 which serve people of all ages, races, incomes and education levels, however some population groups in the U.S. are at higher risk of having low health literacy	<ul> <li>Elderly</li> <li>People with less than a high school education</li> <li>People living in poverty</li> <li>Racial and ethnic minorities</li> <li>People with limited English proficiency</li> </ul>

<sup>&</sup>lt;sup>31</sup> The Department of Health and Human Services references race & ethnic groups in the U.S. and an equivalent standard will be used internationally where available

<sup>&</sup>lt;sup>32</sup> Defined by the North American Industry Classification System (NAICS) provided by the U.S. Small Business Association: https://www.sba.gov/document/support--table-size-standards

33 https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/health-literacy

34 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6391993/

Expenditures dedicated to generation and distribution of energy from renewable sources, including:  - Acquisition or development of new onsite or offsite solar or wind generating capacity  - Purchases of renewable energy from solar or wind sources, or energy storage capacity under long-term (greater than 5 years) power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs), in all cases entered into prior to the commencement, or in the case of rehabilitated projects, the re-commencement, of commercial operation of the project  Energy Efficiency  Expenditures in new or upgraded technologies, products, or systems which increase or are expected to increase energy efficiency in operations, such as laboratories and manufacturing facilities, with 30% estimated energy savings, including:  - Energy efficient heating, ventilation, air conditioning, refrigeration, lighting, roofing or electrical equipment, including retrofits, which may be EPA Energy Star certified products  - Energy monitoring, control solutions and energy assessments, including but not limited to smart meters and control automation devices	Eligible Green	Eligibility Criteria	
sources, including:  - Acquisition or development of new onsite or offsite solar or wind generating capacity - Purchases of renewable energy from solar or wind sources, or energy storage capacity under long-term (greater than 5 years) power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs), in all cases entered into prior to the commencement, or in the case of rehabilitated projects, the re-commencement, of commercial operation of the project  Energy Efficiency  Expenditures in new or upgraded technologies, products, or systems which increase or are expected to increase energy efficiency in operations, such as laboratories and manufacturing facilities, with 30% estimated energy savings, including:  - Energy efficient heating, ventilation, air conditioning, refrigeration, lighting, roofing or electrical equipment, including retrofits, which may be EPA Energy Star certified products  - Energy monitoring, control solutions and energy assessments, including but not limited to smart meters and control automation devices  Expenditures, including design, development, construction, materials, equipment and certification costs, in new or existing buildings or facilities that:  i. Meet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or  ii. Have been refurbished and as a result achieve a minimum 30% improvement in energy use or carbon emissions  Expenditures in facilities, technologies, systems, programs or equipment that improve water quality or water efficiency in operations, such as laboratories and manufacturing facilities, including:  - Wastewater treatment, recycling and harvesting 35  - Reducing, recycling or reusing water  Expenditures in facilities, technologies, systems, programs or equipment used to reduce and manage emissions to air or water, or waste generated from operations, such as laboratories and manufacturing facilities, including:  - Collection, sorting, treatment, reductio	Project Category		
- Purchases of renewable energy from solar or wind sources, or energy storage capacity under long-term (greater than 5 years) power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs), in all cases entered into prior to the commencement, or in the case of rehabilitated projects, the re-commencement, of commercial operation of the project  Energy Efficiency    Sependitures in new or upgraded technologies, products, or systems which increase or are expected to increase energy efficiency in operations, such as laboratories and manufacturing facilities, with 30% estimated energy savings, including:  - Energy efficient heating, ventilation, air conditioning, refrigeration, lighting, roofing or electrical equipment, including retrofits, which may be EPA Energy Star certified products  - Energy monitoring, control solutions and energy assessments, including but not limited to smart meters and control automation devices    Sependitures, including design, development, construction, materials, equipment and certification octosts, in new or existing buildings or facilities that:    Neet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   Neet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   Neet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   Neet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   Neet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   Neet or intend to meet certification or programs or equipment that improve water qualities, including:   Neet or		sources, including: - Acquisition or development of new onsite or offsite solar or wind	
increase or are expected to increase energy efficiency in operations, such as laboratories and manufacturing facilities, with 30% estimated energy savings, including:  - Energy efficient heating, ventilation, air conditioning, refrigeration, lighting, roofing or electrical equipment, including retrofits, which may be EPA Energy Star certified products  - Energy monitoring, control solutions and energy assessments, including but not limited to smart meters and control automation devices    Expenditures, including design, development, construction, materials, equipment and certification costs, in new or existing buildings or facilities that:	**	<ul> <li>Purchases of renewable energy from solar or wind sources, or energy storage capacity under long-term (greater than 5 years) power purchase agreements (PPAs) and virtual power purchase agreements (VPPAs), in all cases entered into prior to the commencement, or in the case of rehabilitated projects, the re-commencement, of commercial operation of</li> </ul>	
including:  - Energy efficient heating, ventilation, air conditioning, refrigeration, lighting, roofing or electrical equipment, including retrofits, which may be EPA Energy Star certified products - Energy monitoring, control solutions and energy assessments, including but not limited to smart meters and control automation devices    Green Buildings   Expenditures, including design, development, construction, materials, equipment and certification costs, in new or existing buildings or facilities that:   i. Meet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   ii. Have been refurbished and as a result achieve a minimum 30% improvement in energy use or carbon emissions    Sustainable Water and Wastewater Management   Expenditures in facilities, technologies, systems, programs or equipment that improve water quality or water efficiency in operations, such as laboratories and manufacturing facilities, including:   Wastewater treatment, recycling and harvesting 35   Reducing, recycling or reusing water    Pollution   Expenditures in facilities, technologies, systems, programs or equipment used to reduce and manage emissions to air or water, or waste generated from operations, such as laboratories and manufacturing facilities, including:   - Collection, sorting, treatment, reduction, recycling or reuse of emissions, waste or hazardous waste   Salvage, use, reuse, or recycling of waste products	Energy Efficiency	, , , , , , , , , , , , , , , , , , ,	
lighting, roofing or electrical equipment, including retrofits, which may be EPA Energy Star certified products  - Energy monitoring, control solutions and energy assessments, including but not limited to smart meters and control automation devices    Expenditures, including design, development, construction, materials, equipment and certification costs, in new or existing buildings or facilities that:   i. Meet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   ii. Have been refurbished and as a result achieve a minimum 30% improvement in energy use or carbon emissions    Expenditures in facilities, technologies, systems, programs or equipment that improve water quality or water efficiency in operations, such as laboratories and manufacturing facilities, including:   Wastewater treatment, recycling and harvesting 35     Reducing, recycling or reusing water	7 STORMAGE AND 13 SCHAFT AND ACTION	including:	
Expenditures, including design, development, construction, materials, equipment and certification costs, in new or existing buildings or facilities that:   i. Meet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or   ii. Have been refurbished and as a result achieve a minimum 30% improvement in energy use or carbon emissions   Expenditures in facilities, technologies, systems, programs or equipment that improve water quality or water efficiency in operations, such as laboratories and manufacturing facilities, including:		lighting, roofing or electrical equipment, including retrofits, which may be EPA Energy Star certified products	
and certification costs, in new or existing buildings or facilities that:  i. Meet or intend to meet certification according to third party verified green building standards, such as LEED Gold or Platinum standard or equivalent standard; or  ii. Have been refurbished and as a result achieve a minimum 30% improvement in energy use or carbon emissions  Sustainable Water and Wastewater Management		but not limited to smart meters and control automation devices	
green building standards, such as LEED Gold or Platinum standard or equivalent standard; or ii. Have been refurbished and as a result achieve a minimum 30% improvement in energy use or carbon emissions  Sustainable Water and Wastewater Management  Management  Wastewater treatment, recycling and harvesting and harvesting and harvesting and harvesting or reusing water  Pollution  Prevention &  Control  Expenditures in facilities, technologies, systems, programs or equipment used to reduce and manage emissions to air or water, or waste generated from operations, such as laboratories and manufacturing facilities, including:  Collection, sorting, treatment, reduction, recycling or reuse of emissions, waste or hazardous waste  Salvage, use, reuse, or recycling of waste products	000000000000000000000000000000000000000		
Sustainable Water and Wastewater Management    Foliution Prevention & Control   12   15   15   15   15   15   15   15	T	green building standards, such as LEED Gold or Platinum standard or	
improve water quality or water efficiency in operations, such as laboratories and manufacturing facilities, including:  - Wastewater treatment, recycling and harvesting 35  - Reducing, recycling or reusing water    Superior   Pollution   Expenditures in facilities, technologies, systems, programs or equipment used to reduce and manage emissions to air or water, or waste generated from operations, such as laboratories and manufacturing facilities, including:  - Collection, sorting, treatment, reduction, recycling or reuse of emissions, waste or hazardous waste  - Salvage, use, reuse, or recycling of waste products			
Management    12   12   13   14   15   15   15   15   15   15   15	Sustainable Water	Expenditures in facilities, technologies, systems, programs or equipment that	
- Wastewater treatment, recycling and harvesting 35 - Reducing, recycling or reusing water    15     15			
Pollution Prevention & Control  12 COORDING  12 COORDING  Collection, sorting, treatment, reduction, recycling or reuse of emissions, waste or hazardous waste  - Salvage, use, reuse, or recycling of waste products	Design Andreas (Andreas Comment		
Pollution Prevention & Control  12 COORDING  12 COORDING  12 COORDING  13 COORDING  14 COORDING  Expenditures in facilities, technologies, systems, programs or equipment used to reduce and manage emissions to air or water, or waste generated from operations, such as laboratories and manufacturing facilities, including:  - Collection, sorting, treatment, reduction, recycling or reuse of emissions, waste or hazardous waste  - Salvage, use, reuse, or recycling of waste products	6 CLEAN WATER 12 REPRODUCTION AND PRODUCTION		
Prevention & Control  12 control  12 control  13 control  14 control  15 control  16 control  17 control  18 control  19 control  19 control  10 control  10 control  11 control  12 control  12 control  13 control  14 control  15 control  16 control  17 control  18 control  19 control  19 control  10 control  10 control  11 control  12 control  12 control  13 control  14 control  15 control  16 control  17 control  18 control  19 control  19 control  19 control  10 control  10 control  11 control  12 control  12 control  13 control  14 control  15 control  16 control  17 control  18 control  19 control  19 control  10 control  10 control  10 control  11 control  12 control  12 control  13 control  14 control  15 control  16 control  17 control  18 control  19 control  19 control  10 control  10 control  10 control  10 control  10 control  11 control  12 control  12 control  13 control  14 control  15 control  16 control  17 control  18 contr	14 with nature  15 of Line  15	- Reducing, recycling or reusing water	
operations, such as laboratories and manufacturing facilities, including:  - Collection, sorting, treatment, reduction, recycling or reuse of emissions, waste or hazardous waste  - Salvage, use, reuse, or recycling of waste products			
- Collection, sorting, treatment, reduction, recycling or reuse of emissions, waste or hazardous waste - Salvage, use, reuse, or recycling of waste products			
waste or hazardous waste - Salvage, use, reuse, or recycling of waste products	Control	, ·	
	12 RESPONDED AND PRODUCTION AND PRODUCTION	waste or hazardous waste	
away from landfills		- Waste treatment projects which divert waste and/or hazardous waste	

 $<sup>^{\</sup>rm 35}$  Wastewater projects will pass an environmental impact assessment

# Process for Project Evaluation and Selection

Merck has established a Sustainability Financing Committee ("SFC"), comprised of representatives from Merck's Treasury, Accounting, Social Business Innovation, Environmental Sustainability, Legal and Investor Relations teams. The SFC is responsible for:

- Evaluating and selecting projects that meet the listed eligibility criteria in the Use of Proceeds section of this Framework
- Ongoing monitoring of Eligible Projects
- Ensuring all Eligible Projects are aligned with Merck's policies, resources and guidelines<sup>36</sup>
- Development of this Framework, management of proceeds and associated reporting commitments

The SFC is chaired by one of Merck's Assistant Treasurers and has representation from the ESG Strategy Management Team to ensure alignment between this Framework and Merck's broader ESG commitments. The SFC will at minimum meet on a semi-annual basis. Any issues or updates of significance will be discussed with senior management including Merck's Treasurer and Executive Vice President of Population Health & Sustainability.

# Management of Proceeds

As long as a Merck Sustainability Financing remains outstanding our internal records will show the amount of the net proceeds from the issuance allocated to Eligible Projects, as well as the amount of net proceeds pending allocation. This process will be monitored by Merck's SFC.

Unallocated proceeds will be managed in accordance with Merck's normal liquidity practices. Payment of principal and interest on each Merck Sustainability Financing will be made from Merck's general funds and will not be directly linked to the performance of any Eligible Projects. Merck will use reasonable efforts to substitute any material Eligible Projects that are no longer eligible as soon as practicable upon identifying an appropriate substitute Eligible Project(s).

# Reporting

### Allocation Reporting

As long as a Merck Sustainability Financing remains outstanding we will provide, and keep readily available, on Merck's website, information on the allocation of an amount equal to the net proceeds of each Merck Sustainability Financing, to be updated at least annually until full allocation and as necessary thereafter in the event of material developments. This information will include (i) amounts allocated to Eligible Social and/or Green Projects, by category, (ii) the amount pending allocation, and (iii) assertions by Merck's management with respect to (i) and (ii) above.

# Impact Reporting

Where feasible and subject to any confidentiality considerations, Merck will report estimated social and/or environmental quantitative impact metrics and provide qualitative case studies on Eligible

<sup>36</sup> https://www.merck.com/company-overview/responsibility/

Projects. For Eligible Social Projects Merck will seek to report impact metrics by target population to show how expenditures are enhancing access to the stated target population.

Eligible Social Project Category	Metric
Access to Essential Services - Healthcare	<ul> <li>People reached through Merck for Mothers (#)</li> <li>People reached globally through product donations, patient assistance programs and partnerships (#)</li> <li>People reached through investments in partnerships and programs that support health care capacity-building and address underlying barriers to access to health (#)</li> </ul>
Socioeconomic Advancement and Empowerment	<ul> <li>Suppliers in the target population participating in Merck's capacity-building opportunities (#)</li> <li>Reviews for patient-facing information conducted by nonprofit vendors, applying evidence-based health literacy best practices (#)</li> <li>Employees participating in Employee Business Resource Groups (EBRGs) that are aimed to serve members of the target population (#)</li> </ul>

Eligible Green Project Category	Metric
Renewable Energy	<ul> <li>Annual renewable energy generation in MWh/GWh (electricity) and MMBtu (other energy)</li> <li>Annual GHG emissions reduced/avoided in tonnes of CO2 equivalent</li> </ul>
Energy Efficiency	<ul> <li>Annual energy savings in MWh/GWh (electricity) and MMBtu (other energy savings)</li> <li>Annual GHG emissions reduced/avoided in tonnes of CO2 equivalent</li> </ul>
Green Buildings	<ul> <li>Total floor space of green real estate (ft² or m²)</li> <li>Annual GHG emissions reduced/avoided in tonnes of CO2 equivalent</li> <li>Green Building certification and level obtained</li> </ul>
Sustainable Water and Wastewater Management	<ul> <li>Annual absolute (gross) amount of wastewater treated, reused or avoided before and after the project and as a %</li> <li>% of total water reduced<sup>37</sup></li> </ul>
Pollution Prevention & Control	<ul> <li>% of waste diverted from landfill and incineration without energy recovery</li> <li>% of sites zero-waste-to-landfill</li> </ul>

# **External Review**

# **Second Party Opinion**

Merck has commissioned V.E. to conduct an external review of its Sustainability Financing Framework, and to issue a Second Party Opinion (SPO) on the Framework's alignment with the Social Bond Principles (2021), Green Bond Principles (2021), and Sustainability Bond Guidelines (2021). The SPO will be made publicly available.

<sup>&</sup>lt;sup>37</sup> Absolute reduction vs. 2015 baseline, for more information please refer to Merck's 2020/2021 ESG Progress Report

### Verification

Each allocation report will be accompanied by a report from an independent registered public accounting firm in respect of its examination of management's assertions conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants.

### Disclaimer

This Framework is provided for informational purposes only and is subject to change without notice. This Framework is intended to provide non-exhaustive, general information. This Framework represents current Merck policy and intent as of the date this Framework is first published, and is not intended, nor can it be relied on, to create legal relations, rights or obligations.

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This Framework is not incorporated by reference into, or a part of, any offering materials or any security. Neither the terms of any Merck Sustainability Financing nor Merck's existing indentures or commercial paper program will require Merck to use the proceeds of any Merck Sustainability Financing for Eligible Projects, and any failure by Merck to comply with the anticipated use of proceeds will not constitute a breach thereof, or an event of default thereunder.

This Framework includes "forward-looking statements" within the meaning of the safe harbor provisions of the U.S. Private Securities Litigation Reform Act of 1995. These statements are based upon current beliefs and expectations and are subject to significant risks and uncertainties. All

statements that do not relate strictly to historical or current facts are forward-looking statements. One can generally identify these forward-looking statements by their use of words such as "anticipate," "estimate," "expect," "will," "projects" and other words of similar meaning, or negative variations of any of the foregoing. Forward-looking statements include statements about the use of proceeds from any Merck Sustainability Financing and the results thereof.

One must carefully consider any such statement and should understand that many factors could cause actual results to differ materially from our forward-looking statements. These factors include assumptions and a broad variety of other known and unknown risks and uncertainties, including some that are known and some that are not. No forward-looking statement can be guaranteed. Merck does not assume the obligation to update any forward-looking statement. You are cautioned not to place undue reliance on these forward-looking statements. The use of proceeds from any Merck Sustainability Financing, and the results thereof, could differ materially from those expressed or implied in the forward-looking statements. Additional factors that could cause results to differ materially from those described in the forward-looking statements can be found in Merck's 2020 Annual Report on Form 10-K and the Company's other filings with the Securities and Exchange Commission (SEC) available at the SEC's Internet site (www.sec.gov).

Neither this document nor any other related material may be distributed or published in any jurisdiction in which it is unlawful to do so, except under circumstances that will result in compliance with any applicable laws and regulations. Persons into whose possession such documents may come must inform themselves about, and observe, any applicable restrictions on distribution. Providing this Framework does not mean that Merck certifies the materiality, the excellence or the irreversibility of the projects undertaken by the Eligible Projects described herein.