Celanese

2022–2023

Sustainability Index

About Our Sustainability Index

For over a century, Celanese has improved the world through the power of chemistry. The expertise of our talented teams is the driving force behind the high-performing products that are an integral part of many items commonly used in daily life. We believe in caring for those around us, improving the communities we serve, and providing products to help build a more sustainable world.

We deliver key products and solutions to address some of the most difficult challenges—from making electric vehicles lighter to increasing the durability of medical devices. Our customers depend on Celanese to help them accelerate product development and deliver new solutions to their end customers, and ultimately, the people around the world who use their products.

Our Sustainability Index (Index) enables efficient access to our policies, practices, and metrics around sustainability topics. Our Index covers the operations and activities of Celanese Corporation for the calendar year 2022 (January 1 to December 31) and key sustainability activities in the first half of 2023. However, it excludes data associated with the recent acquisition of the DuPont Mobility and Materials (M&M) business due to the different methods of data collection and reporting between M&M and legacy Celanese unless otherwise noted. The numbers and percentages contained in this Index are for the full year or as of year-end 2022 unless otherwise stated. In some cases, they reflect estimates or approximations and may rely on assumptions.

Our Index aligns with the Sustainability Accounting Standards Board (SASB) Chemicals Sustainability Accounting Standard, the Task Force on Climate-Related Financial Disclosure (TCFD), and the United Nations (UN) Sustainable Development Goals (SDGs). Our disclosures are informed by the GRI Standards, and we consider our impacts on the economy, environment, and people as part of our management approach. This Index also contains statements regarding targets, plans, strategies, and objectives that are "forward-looking" and aspirational in nature. See Certain Information and Use of Estimates, Internal Audit Validation, Forward-Looking Statements and Other Important Information, and Descriptions of Products for more information about the nature, scope, and limitations of the statements and information in this Index.

Celanese Corporation is a public company whose common stock is traded on the New York Stock Exchange under the symbol CE. Celanese Corporation conducts the majority of its operations through its subsidiaries. In this report, the terms "Celanese," "the company," "we," "our," and "us" refer collectively to Celanese and its subsidiaries on a consolidated basis. This Index excludes the operations of Celanese joint ventures unless under operational control of Celanese.

To review our sustainability highlights over this past year, please see our 2022–2023 Sustainability Report.

Company Information

TWO LEADING BUSINESSES

Our Acetyl Chain and Engineered Materials businesses design, develop, and manufacture materials that meet a wide range of critical needs across most major industries. Our sustainable solutions are also designed to help customers address their own sustainability targets without compromising quality or performance. Both business segments hold leading positions in the industries we serve worldwide and are complemented by a large, global production capacity, which has uniquely positioned us to capture ~$2 billion in adjusted EBITDA value.

Acetyl Chain

Paints and Coatings, Adhesives, Textiles, Packaging, and Pharma

$5.7 billion
in net sales

Engineered Materials

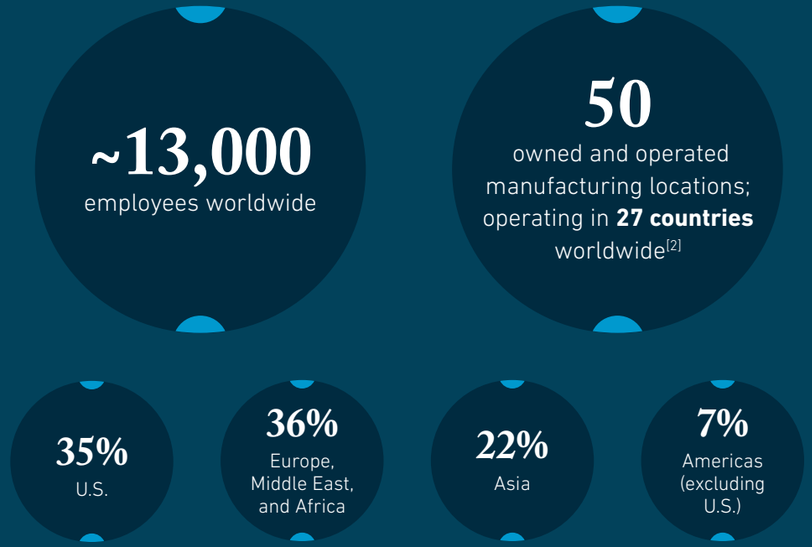
Automotive, Medical, Electronics and Electrical, Industrial, Appliances, and Food Ingredients

$6.9 billion
in net sales[1]

GLOBAL FOOTPRINT

While we call Dallas, Texas, home, we produce our differentiated chemistry solutions and specialty materials across the Americas, Europe, Middle East, Africa, and Asia, with European headquarters in Amsterdam and Asian headquarters in Shanghai.

Celanese is an S&P 500, New York Stock Exchange (NYSE)-traded company.



[1] Inclusive of full year 2022 M&M net sales.

[2] As of December 31, 2022. Includes both Celanese and M&M data.

POLICIES AND STATEMENTS

- Anti-Corruption Policy
- Anti-Discrimination Statement
- Celanese Business Conduct Policy
- Celanese Political Contributions
- Certification Database
- Climate Policy
- Competition Law Policy
- Conflict Minerals Policy and Disclosures
- Cybersecurity Information and Security Statement
- Dissolving Wood Pulp – Sustainable Sourcing Policy
- EHS Policy and Guiding Principles
- Ethics/Whistleblower Hotline Statement
- Equal Opportunities Policy
- Human Rights and Equality Policy
- International Trade Compliance Policy
- Modern Slavery Statement
- Political Engagement Policy
- Product Stewardship Disclosure
- Quality Guiding Principles
- Self-Declaration for Customers
- Supplier Partnership Guide
- Sustainable Procurement Policy
- Third-Party Code of Conduct
- Water Management Policy

OTHER SUSTAINABILITY REPORTING

- 2023 CDP Climate Response
- 2023 CDP Forest Response
- 2023 CDP Water Security Response
- 2022 Corporate Equality Index Score

ADDITIONAL RESOURCES

- Celanese Foundation
- Celanese Leadership/Board of Directors
- Celanese Sustainability Team
- Celanese Website
- Financial Information/Investor Relations
- Information Management
- REACH Compliance Team
- Safety Data Sheets
- Supplier Diversity Program

Our Approach

Our Environmental, Social, and Governance (ESG) Council routinely undertakes extensive research and consultation to continuously improve our sustainability program at Celanese. This involves mapping standards and metrics from SASB, Global Reporting Initiative (GRI), the American Chemistry Council (ACC), and the European Chemical Industry Council (Cefic). We also leverage our **strategic Sustainability Framework** to help us accelerate safe and sustainable solutions through chemistry. Within the framework, **we identify Priority Topics through stakeholder engagement and alignment with chemical industry best practices**.

As we review and refine the Priority Topics important to us every year, Celanese consults both internal and external stakeholders through sustainability-related questions submitted into our ESG mailbox. We also gather investor feedback received during regular outreach, industry thought leadership through ACC's Sustainability Board Committee where our CEO is an active member, and to broaden our global perspective, participation in Cefic initiatives.

Our formal enterprise risk management process includes a dedicated ESG workshop led by our Internal Audit (IA) team, where our cross-functional ESG Council members analyze ESG risks and their interdependencies. The workshop also provides a forum for the Council to annually evaluate our Priority Topics in the context of evolving risk and business objectives.

In 2022, we began the process of developing a corporate environmental reporting standard to enhance our disclosure processes and to drive consistency across our businesses and acquisitions. This document aims to provide clear definitions and methodologies for collecting data at both the facility and corporate levels. We continue to identify pathways to align our business practices with a sustainable future.

Priority Topics

Advancing Safe and Sustainable Customer Solutions

- Circular Economy
- Chemical Safety
- Supplier Risk Management

Investing in Our People and Communities

- Human Capital
- Safety and Stewardship
- Community Relations

Preserving the Environment

- Climate and Air Emissions
- Energy
- Water
- Waste

Operating With Integrity

- Corporate Governance and Risk Management
- Cybersecurity

Sustainability Highlights

ADVANCING SAFE AND SUSTAINABLE CUSTOMER SOLUTIONS

- Expanded our Acetyl and Engineered Materials portfolios to **now offer more sustainable options across approximately 60% of our product lines.**
- Prepared for the early 2024 launch of our **Carbon Capture and Utilization (CCU) Project using recycled CO_2** to make methanol that can be used to lower the carbon footprint for most of our Acetyl Chain product options.
- **Provided customers with increased transparency on product sustainability benefits**, using mass balance methodology, external certifications, and increased Life Cycle Analysis (LCA) capabilities.
- **Set a supply chain management goal** to assess key suppliers, representing more than 90% of our 2022 global procurement raw material spend, on sustainability criteria by 2025.

PRESERVING THE ENVIRONMENT

- **Improved our 2022 CDP Climate Change response score to a "B"** for taking coordinated action on climate issues. The "B" rating is higher than CDP's chemicals sector average of "B-," and higher than CDP's global average of "C."
- Developed an **integrated environmental and sustainability reporting standard** to harmonize Celanese and M&M reporting approaches on metrics, definitions, boundaries, and methodologies.
- Refreshed our **transition plan to support our 2030 target goals** for energy, Scope 1 and Scope 2 greenhouse gas (GHG) emissions, waste, and water.
- Advanced our **Scope 3 inventory** efforts in anticipation of disclosing future company-wide metrics.
- Continued our engagement with **ERM CVS to include a limited assurance** of our calendar year 2022 environmental sustainability metrics and associated 2023 CDP Climate Change and Water Security disclosures.

INVESTING IN OUR PEOPLE AND COMMUNITIES

- **Volunteered nearly 123,000 employee hours to benefit local communities.**
- **Conducted a culture survey** of our workforce and optimized our talent management and development strategies to support integration of M&M employees.
- Invited 4,500 new M&M team members to initiate local chapters of **Employee Resource Groups (ERGs)**, one of our key Diversity, Equity, and Inclusion (DE&I) program initiatives, at their respective facilities.
- **Implemented a robust contractor safety management program**, yielding performance improvements in contractor Total Recordable Incident Rate (TRIR) year over year, and zero Days Away from Work related incidents for contractors in 2022.

OPERATING WITH INTEGRITY

- Allocated **sustainability oversight responsibilities to our full Board and Committees** based on their respective areas of focus, with regular review as our business and stakeholder perspectives evolve.
- Expanded our risk definitions to include risks related to our recent M&M acquisition during our **sustainability-focused enterprise risk management workshop**.
- Reported **no material cybersecurity breaches** to our knowledge in the preceding three years as of June 30, 2023.
- **Published a Cyber and Information Security statement** highlighting program training, third-party assessment, and Board oversight.

[1] Largest based on estimated CO_2 utilized.

Awards and Recognition

One of the Best Places to Work for LGBTQ+ Equality by Human Rights Campaign Corporate Equality Index 2022

One of America's Most Responsible Companies 2023 by Newsweek

ENERGY STAR 2023 Partner of the Year for the eighth consecutive year and the Sustained Excellence designation for the sixth consecutive year

2023 Association of International Chemical Manufacturers (AICM) Best Responsible Care Company Award and Environment-Friendly Award in China

"Best of the Decade100" company by Minority & Multi-Cultural Business News USA for our Supplier Diversity Program in 2023

2023 Manufacturing Leadership Award for Digital Network Connectivity category by the Manufacturing Leadership Council and the National Association of Manufacturers

Three M&M products (Zytel® PA612, Crastin® PBT, and Vamac® AEM) received awards at the 51st Annual Society of **Plastics Engineers Automotive Innovation Awards** Competition and Gala in November 2022

2023 ACC Responsible Care **Energy Efficiency Award** recipient for the third consecutive year

ACC recognition in 2022 and 2023 as a leader in the chemical industry for **exceptional environmental, health, safety, and security performance and commitment to sustainability**

Shenzhen Green Company and Environmental Integrity Enterprise designation in 2022

Perfect Corporate Equality Index score from the Human Rights Campaign Foundation for the fourth consecutive year

Our Celanese Budapest facility recognized as a Three Princes, Three Princesses Movement **Family Friendly Company** 2022 for the sixth consecutive year

Best Midsize Employer 2022 by Forbes America

Best-In-State Employer 2022 by Forbes America for Texas

Sustainability Accounting Standards Board (SASB) Index

DISCLOSURE	METRIC	SASB	2020	2021	2022
Greenhouse Gas Emissions	Gross Scope 1 (metric tons (MT) CO_2e) ✓	RT-CH-110a.1	2,275,903	2,375,026	2,311,481[1]
	Emissions Covered Under Emissions-Limiting Regulations (metric tons (MT) CO_2e), (%)	RT-CH-110a.1	105,406 (4.6%)	111,115 (4.7%)	88,317 (3.8%)
	Discussion of Long-Term and Short-Term Strategy or Plan to Manage Scope 1 Emissions, Emissions Reduction Targets, and an Analysis of Performance Against Those Targets	RT-CH-110a.2	2020/21 Sustainability Report, Climate	2021–2022 Sustainability Report, Preserving the Environment	2022–2023 Sustainability Report, Preserving the Environment
Air Quality	Air Emissions of NOx (excluding N_2O) (metric tons (MT))	RT-CH-120a.1	1,034	877	1,091
	Air Emissions of SOx (metric tons (MT))	RT-CH-120a.1	59	58	63
	Air Emissions of Volatile Organic Compounds (VOCs) (metric tons (MT))	RT-CH-120a.1	2,578	2,900	2,700
	Air Emissions of Hazardous Air Pollutants (HAPs) (metric tons (MT))	RT-CH-120a.1	313	246	367
Energy Management	Total Energy Consumed (million BTU (MMBTU)) ✓	RT-CH-130a.1	49,043,884	51,661,145	50,164,693
	Grid Electricity (million BTU (MMBTU)), (%)	RT-CH-130a.1	4,208,484 (8.6%)	4,809,175 (9.3%)	4,398,414 (8.8%)
	Renewable Energy (million BTU (MMBTU)), (%)	RT-CH-130a.1	10,284 (0.02%)	23,780 (0.046%)	266,763 (0.53%)
	Total Self-Generated Energy (million BTU (MMBTU))	RT-CH-130a.1	62.5	391	531

[1] ERM CVS has provided assurance on total Scope 1 emissions of 2,311,480.51 MT CO_2e.

✓ Denotes that ERM CVS performed limited assurance of our 2021 and 2022 environmental numbers, which serve as the bases for our 2030 GHG, Energy, Water, and Waste targets.

DISCLOSURE	METRIC	SASB	2020	2021	2022
Water Management	Total Water Withdrawn (thousand cubic meters (m^3))	RT-CH-140a.1	150,097	165,635	160,529
	Groundwater Renewable Withdrawn (%)	RT-CH-140a.1	7.4%	6.9%	6.0%
	Surface Water Withdrawn (%)	RT-CH-140a.1	78.6%	73.8%	73.4%
	Sourced From Third Party (%)	RT-CH-140a.1	14%	19.3%	20.4%
	Total Water Consumed (thousand cubic meters (m^3)) ✓	RT-CH-140a.1	14,740 (2.06% of water consumed from regions with high or extremely high baseline water stress as defined by the World Resources Institute Aqueduct Water Atlas)	18,226 (13.32% of water consumed from regions with high or extremely high baseline water stress as defined by the World Resources Institute Aqueduct Water Atlas)[1]	17,788 (13.27% of water consumed from regions with high or extremely high baseline water stress as defined by the World Resources Institute Aqueduct Water Atlas)
	Number of Incidents of Non-Compliance Associated With Water Quality Permits, Standards, and Regulations	RT-CH-140a.2	0: No incidents of non-compliance with wastewater discharge permit standard that resulted in the receipt of a formal Notice of Violation	2	3[2]
	Description of Water Management Risks and Discussion of Strategies and Practices to Mitigate Those Risks	RT-CH-140a.3	2020/21 Sustainability Report, Water	2021–2022 Sustainability Report, Treating Water as a Vital Resource	2022–2023 Sustainability Report, Strengthening Water Stewardship
Hazardous Waste Management	Hazardous Waste Generated (metric tons (MT)), (% recycled) ✓	RT-CH-150a.1	50,674 (8.4% recycled)	54,954 (8.2% recycled)	53,405 (7.5% recycled)
Community Relations (Community Investment)	Discussion of Engagement Processes to Manage Risks and Opportunities Associated With Community Interests	RT-CH-210a.1	2020/21 Sustainability Report, Community Relations	2021–2022 Sustainability Report, Investing in Our People and Communities	2022–2023 Sustainability Report, Engaging Our Communities

[1] The percentage of water consumed from regions with high or extremely high baseline water stress as defined by the World Resources Institute Aqueduct Water Atlas is being restated due to a calculation error observed while aggregating calendar year 2022 water consumption data.

[2] Number of incidents of non-compliance associated with water quality permits, standards, and regulations includes the number of formal enforcement actions received for observed and reported water non-compliance issues.

✓ Denotes that ERM CVS performed limited assurance of our 2021 and 2022 environmental numbers, which serve as the bases for our 2030 GHG, Energy, Water, and Waste targets.

DISCLOSURE	METRIC	SASB	2020	2021	2022
Workforce Health and Safety (Safety Metrics)	Total Recordable Incident Rate (TRIR)	RT-CH-320a.1	0.21	0.17	0.28
	Fatality Rate for Direct Employees	RT-CH-320a.1	0.01	0.00	0.00
	Fatality Rate for Contract Employees	RT-CH-320a.1	0.03	0.00	0.00
	Description of Efforts to Assess, Monitor, and Reduce Exposure of Employees and Contract Workers to Long-Term (Chronic) Health Risks	RT-CH-320a.2	2020/21 Sustainability Report, Workforce Health and Safety	2021–2022 Sustainability Report, Instilling a Culture of Safety	2022–2023 Sustainability Report, Stewardship: Health and People Safety
Product Design for Use-Phase Efficiency	Revenue from Products Designed for Use-phase Resource Efficiency (%)	RT-CH-410a.1	~29% [$1,622 million of $5,655 million total] Renewable = $744 million (13%) [EtAc, CA Tow, Clarifoil] Resource Eff = $878 million (16%) [EM Auto, GUR LiBs, Elotex]	Not disclosed in 2021	~4% (from products containing renewable feedstocks exclusive of enablers)[1]
Safety and Environmental Stewardship of Chemicals	Products that Contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 And 2 Health and Environmental Hazardous Substances (%), (% by revenue)	RT-CH-410b.1	0.2% (53% by revenue)	0.2% (64% by revenue)	0.2% (60% by revenue)
	Such Products that Have Undergone a Hazard Assessment (%)	RT-CH-410b.1	100%	100%	100%
	Discussion of Strategy to Manage Chemicals of Concern	RT-CH-410b.2	2020/21 Sustainability Report, Chemical Safety	2021–2022 Sustainability Report, Reinforcing Our Chemical Process Management	2022–2023 Sustainability Report, Chemical Safety Process Management
	Discussion of Strategy to Develop Alternatives with Reduced Human and/or Environmental Impact	RT-CH-410b.2	2020/21 Sustainability Report, Chemical Safety	2021–2022 Sustainability Report, Reinforcing Our Chemical Process Management	2022–2023 Sustainability Report, Stewardship: Health and People Safety
Genetically Modified Organisms	Revenue from Products that Contain Genetically Modified Organisms (GMOs) ($)	RT-CH-410c.1	Not applicable to Celanese products	Not applicable to Celanese products	Not applicable to Celanese products

[1] Enablers are solutions that help customers achieve improved sustainability through differentiated product characteristics or design but may not contain any sustainable content or be sustainably produced.

DISCLOSURE	METRIC	SASB	2020	2021	2022
Management of the Legal and Regulatory Environment	Discussion of Corporate Positions Related to Government Regulations and/or Policy Proposals that Address Environmental and Social Factors Affecting the Industry	RT-CH-530a.1	2020/21 Sustainability Report, Chemical Safety 2020/21 Sustainability Report, Operating With Integrity 2021 CDP Climate Change Response	2021–2022 Sustainability Report, Operating With Integrity Political Engagement Policy 2022 CDP Climate Change Response	2022–2023 Sustainability Report, Operating With Integrity Political Engagement Policy 2023 CDP Climate Change Response 2023 CDP Water Security Response
Operational Safety, Emergency Preparedness and Response	Number of Process Safety Incidents (PSIC)	RT-CH-540a.1	8	16	11
	Tier 1 and 2 Process Safety Incident Rates (per 200,000 hours)	RT-CH-540a.1	0.077	0.137	0.105
	Process Safety Incident Severity Rate (PSISR)	RT-CH-540a.1	0.278	0.009	0.086
	Number of Transport Incidents	RT-CH-540a.2	Not disclosed in 2020	11	5
Production by Reportable Segment	Total Production (metric tons (MT)) ✓	RT-CH-000.A	8,652,805	9,335,196	8,713,761

✓ Denotes that ERM CVS performed limited assurance of our 2021 and 2022 environmental numbers, which serve as the bases for our 2030 GHG, Energy, Water, and Waste targets.

Task Force on Climate-Related Financial Disclosures (TCFD) Index

GOVERNANCE	Disclose the organization's governance around climate-related risks and opportunities.	
Describe the Board's oversight of climate-related risks and opportunities.	The full Board has oversight responsibility for climate policy and strategy, and receives reports at least quarterly from the Environmental, Health, Safety, Quality, and Public Policy (EHSQPP) Committee. The EHSQPP Committee also oversees the development, implementation, and monitoring of GHG reduction and energy targets in manufacturing and production processes. The Nominating and Corporate Governance (NCG) Committee of the Board oversees reporting on ESG metrics, including oversight on reporting frameworks such as SASB and TCFD and annual limited external assurance of environmental metrics. Six members of the Celanese Board have experience with complex environmental regulation and sustainability-focused strategy, including climate-related risk management. Two of the members have specific climate-related risk management expertise through their professional experience and have held positions with oversight responsibility for understanding climate risks and developing mitigation strategies.	2023 CDP Climate Change Response C1.1a, C1.1b, C1.1d 2023 Proxy Statement pp. 1, 7–8, 29–33 Corporate Governance Guidelines, Section A 2022–2023 Sustainability Report: Overseeing Sustainability Risk Through Governance 2022–2023 Sustainability Index: Governance Structure Flow Chart
Describe management's role in assessing and managing climate-related risks and opportunities.	The Celanese CEO, who is also the Chairman of the full Board, established the ESG Council. The ESG Council's recommendations are reviewed and approved by the CEO. Our CEO also approved our initiatives to improve and analyze our GHG emissions database, evaluate meaningful reduction targets, and develop a GHG abatement strategy. These efforts led to Celanese announcing GHG emissions reduction targets in early 2022. At least quarterly updates are provided to the Board on ESG topics, including climate. The ESG Council Climate Working Group, co-chaired by our Chief Procurement Officer and VP, Global Government Affairs, focuses specifically on climate-related issues and typically meets biweekly to develop and implement a comprehensive strategy to reduce the Celanese carbon footprint.	2023 CDP Climate Change Response C1.1a, C1.2 2022–2023 Sustainability Report: Overseeing Sustainability Risk Through Governance

STRATEGY	Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	
Describe the climate-related risks and opportunities Celanese has identified over the short, medium, and long term.	Climate-related risks and opportunities include emerging regulatory impacts, carbon pricing mechanisms, enhanced emissions-reporting obligations, renewable energy procurement, physical impacts, supply chain disruptions, and raw material availability. In response, Celanese has invested in capital projects to develop Life Cycle Assessments (LCA), increase supply chain visibility and resiliency, sustainably source materials, and reuse carbon through Carbon Capture and Utilization (CCU) deployment.	2023 CDP Climate Change Response C2.1a, C2.3, C2.3a, C2.4, C2.4a 2022 Form 10-K pp. 13–14, 17–18, 24, 35 2023 Proxy Statement pp. 7–8 2022–2023 Sustainability Report: Preserving the Environment 2022–2023 Sustainability Index: Preserving the Environment
Describe the impact of climate-related risks and opportunities on Celanese businesses, strategy, and financial planning.	In response to climate-related risks, we have developed our strategy to include an energy transition plan, a foundational framework for Product Carbon Footprint (PCF), and LCA modeling for the Celanese key, top-tier products.	2023 CDP Climate Change Response C2.3a, C2.4a, C3.1, C3.2a, C3.2b, C3.3, C3.4 2022 Form 10-K pp. 13–14 2023 Proxy Statement pp. 7–8 2022–2023 Sustainability Report: Preserving the Environment 2022–2023 Sustainability Index: Preserving the Environment
Describe the resilience of Celanese strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Our resilience strategy includes our 2023 Methanol Expansion, investment in the lower carbon and biobased product offerings of our ECO lines, and strategic supplier engagements.	2023 CDP Climate Change Response C3.1, C3.2, C3.2a, C3.3, C3.4, C12.3a 2022 Form 10-K pp. 13–14 2022–2023 Sustainability Report: Preserving the Environment 2022–2023 Sustainability Index: Preserving the Environment

RISK MANAGEMENT	Disclose how the organization identifies, assesses, and manages climate-related risks.	
Describe Celanese processes for identifying and assessing climate-related risks.	Led by our Internal Audit (IA) function, Celanese holds annual risk workshops with the leadership teams of key functions to assess the current risk universe applicable to those functions. Since 2021, Celanese has established an ESG-specific workshop as part of our enterprise risk management processes. Our cross-functional ESG Council participated in the workshop, allowing for an in-depth discussion of ESG risks such as climate and energy, and their interdependencies. Mitigation activities for risks are identified, reviewed, and monitored throughout the year. In 2022, we enhanced our risk definitions to include risks related to our recent M&M acquisition.	2023 CDP Climate Change Response C2.1, C2.1a, C2.1b, C2.2, C2.2a 2023 Proxy Statement pp. 32–36 2022 Form 10-K pp. 13–14 2022–2023 Sustainability Report: Overseeing Sustainability Risk Through Governance
Describe Celanese processes for managing climate-related risks.	Climate-related risks and opportunities identified that could have a substantive financial or strategic impact are integrated into our overall corporate enterprise risk management processes. We consider short-, medium-, and long-term risks across our direct operations, downstream, and upstream. Risk and remediation status are tracked throughout the year with quarterly certifications by the executive leadership team for major enterprise-level risks. We plan on continuing the ESG-specific workshop to inform the enterprise risk management program for 2023.	2023 CDP Climate Change Response C2.1, C2.2, C2.2a 2023 Proxy Statement pp. 32–36 2022 Form 10-K pp. 13–14 2022–2023 Sustainability Report: Overseeing Sustainability Risk Through Governance
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into overall Celanese risk management.	Our process for identifying climate-related risks is integrated into our multi-disciplinary, company-wide risk management process. For major risks, assigned owners are tasked with developing and executing remediation plans.	2023 CDP Climate Change Response C1.1b, C2.1, C2.2 2023 Proxy Statement pp. 32–36 2022 Form 10-K pp. 13–14 2022–2023 Sustainability Report: Overseeing Sustainability Risk Through Governance
Disclose the metrics used by Celanese to assess climate-related risks and opportunities in line with its strategy and risk-management process.	Celanese uses energy consumption and generation, including fuels for combustion, electricity, heat, steam, cooling, and renewable energy, among other sources. For our major climate-related goals, we use energy and GHG intensity as our metric of progress.	2023 CDP Climate Change Response C4.1b, C4.2, C4.2b, C8.2, C8.2a, C8.2c, C8.2d, C-CH8.2d, C8.2e, C8.2g, C-CH8.3a, C-CH8.3b, C9.1 2023 Proxy Statement pp. 7–8 2022–2023 Sustainability Index: Preserving the Environment
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions and the related risks.	Gross global Scope 1 emissions: 2,311,481 metric tons CO_2e Scope 2 (Location-based): 1,320,684 metric tons CO_2e Scope 2 (Market-based): 1,282,231 metric tons CO_2e[1]	2023 CDP Climate Change Response C5.1b, C5.2, C6.1, C6.3, C6.4, C6.5 2022–2023 Sustainability Index: Preserving the Environment
Describe the targets used by Celanese to manage climate-related risks and opportunities and performance against targets.	**2030 targets against a 2021 baseline:** 30% reduction in Scope 1 and Scope 2 GHG intensity 10% reduction in total net energy intensity	2023 CDP Climate Change Response C4.1, C4.1b, C4.2, C4.2b 2023 Proxy Statement pp. 7–8 2022–2023 Sustainability Report: Preserving the Environment 2022–2023 Sustainability Index: Preserving the Environment

[1] ERM CVS has provided assurance on total Market-based Scope 2 emissions of 1,282,231 MT CO_2e.

United Nations Sustainable Development Goals (UN SDGs)

SDG 3: GOOD HEALTH AND WELL-BEING

- Offering relevant health and welfare benefits to employees and their families across the globe to promote physical, mental, and financial health
- Collaborating with healthcare leaders on our VitalDose Technology Platform, a controlled-release, long-acting drug delivery solution with potential benefits for multiple clinical segments, including oncology, diabetes, infectious disease, central nervous system disorders, ophthalmology, and women's health
- Advancing our prototype for a refillable contraceptive implant in partnership with the Bill & Melinda Gates Foundation, which could benefit women in low- and middle-income countries and is expected to move to the next stage of development in 2024

SDG 6: CLEAN WATER AND SANITATION

- Piloting a digital platform at our Clear Lake, Texas, facility that offers real-time water balance monitoring and the use of a digital twin for optimization
- Evaluating a project at our Bishop, Texas, facility to develop and replace an inefficient supply of surface water with local groundwater while eliminating the need for deep well injection
- Launching a training program on how to perform facility-level water balance assessments that will advance the identification of facility-specific needs and opportunities to reinforce facilities' abilities to set meaningful water stewardship targets

SDG 9: INDUSTRY, INNOVATION, AND INFRASTRUCTURE

- Publishing a Sustainable Procurement Policy for our suppliers to complement our Third-Party Code of Conduct, outlining our expectations of suppliers to adhere to applicable local legislation and regulations regarding human rights, modern slavery, diversity, the environment, and other sustainability-related topics
- Refining our procurement process to assess key suppliers, for those representing more than 90% of our 2022 global procurement raw material spend, on environmental and social sustainability-related criteria
- Increasing the use of renewable feedstocks through our ECO-B (biocontent) and ECO-R (recycled content) products
- Advancing BioPolymer solutions that enable compostable and biodegradable products, with potentials for energy reductions in select applications

SDG 10: REDUCED INEQUALITIES

- Expanding ERGs to include newly integrated M&M team members and promote employee cultural awareness, visibility, and representation of members
- Introducing a targeted early pipeline recruiting program and expanding branding globally to increase campus hiring for key facilities
- Enabling science, technology, engineering, and mathematics (STEM) education, scholarship programs, and access to talent in minority populations through partnerships with women and Black engineering societies and Historically Black Colleges and Universities
- Conducting operations in 27 countries, which provide viable wages and benefits for global employees
- Striving for everyone to feel they can bring their most authentic selves to work, which is affirmed by our "Best Place to Work for LGBTQ+" recognition from the Human Rights Campaign Corporate Equality Index
- Hosting our second annual Global Women in Manufacturing Conference to celebrate our Celanese female manufacturing colleagues
- Trained 100% of employees on preventing discrimination and protecting human rights

SDG 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

- Expanding our LCA capabilities through the acquisition of M&M resources, coupled with our established and externally peer-reviewed LCA process
- Utilizing mass balance accounting to trace renewable product amounts in comingled production, allowing for simplified integration into large-scale production ecosystems
- Achieving ENERGY STAR Partner of the Year for the eighth consecutive year and receiving the Environmental Protection Agency's (EPA) Sustained Excellence award for the sixth consecutive year

SDG 13: CLIMATE ACTION

- Increasing our focus on the procurement of renewable electricity and capital investment projects to reduce our Scope 1 and Scope 2 emissions
- Calculating and documenting our Scope 3 emissions for 7 of 12 relevant categories and developing a process to integrate M&M Scope 3 emissions to further understand and refine our Scope 3 inventory
- Prepared for the early 2024 launch of our CCU Project using recycled CO_2 to make methanol that can be used to lower the carbon footprint for most of our Acetyl Chain product options.
- Completing our first full year of solar energy generation, meeting approximately 30% of our Clear Lake, Texas, facility's electricity demand
- Completing a digital transformation project at our world-class acetyls plant in Clear Lake, Texas, enabling greater operational efficiency, agility, and informed decision-making, which will help support reducing our environmental footprint
- Developing comprehensive, enterprise-level transition plans to accelerate environmental performance improvements and integrate the M&M business further into Celanese operations for future data reporting

Advancing Safe and Sustainable Customer Solutions

Circular Economy – Chemical Safety – Supplier Risk Management

DISCLOSURE	METRIC	SASB	2020	2021	2022
Safety and Environmental Stewardship of Chemicals	Products That Contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances (%), (% by revenue)	RT-CH-410b.1	0.2% (53% by revenue)	0.2% (64% by revenue)	0.2% (60% by revenue)
	Such Products That Have Undergone a Hazard Assessment (%)	RT-CH-410b.1	100%	100%	100%
	Discussion of Strategy to Manage Chemicals of Concern	RT-CH-410b.2	2020/21 Sustainability Report, Instilling a Culture of Safety	2021–2022 Sustainability Report, Reinforcing Our Chemical Process Safety Management	2022–2023 Sustainability Report, Stewardship: Chemical Safety Process Management
	Discussion of Strategy to Develop Alternatives With Reduced Human and/or Environmental Impact	RT-CH-410b.2	2020/21 Sustainability Report, Instilling a Culture of Safety	2021–2022 Sustainability Report, Reinforcing Our Chemical Process Safety Management	2022–2023 Sustainability Report, Stewardship: Chemical Safety Process Management
Product Design for Use-Phase Efficiency	Revenue From Products Designed for Use-Phase Resource Efficiency (%)	RT-CH-410a.1	~29% [$1,622 million of $5,655 million total] Renewable = $744 million (13%) [EtAc, CA Tow, Clarifoil] Resource Eff = $878 million (16%) [EM Auto, GUR LiBs, Elotex]	Not disclosed in 2021	~4% (from products containing renewable feedstocks exclusive of enablers)[1]
Supplier Diversity Economic Impact[2]	Production Impact/Total Economic Activity ($)	-	Not disclosed in 2020	~195 million	~10.4 million
	Number of Jobs Supported	-	Not disclosed in 2020	~1,380	~423
	Wages Earned Through Our Supplier Diversity Program ($)	-	~48 million	~250 million	~13.6 million
	Net Increase to the U.S. Gross Domestic Product by Our Supplier Diversity Program	-	Not disclosed in 2020	~110 million	~6 million

[1] Enablers are solutions that help customers achieve improved sustainability through differentiated product characteristics or design but may not contain any sustainable content or be sustainably produced.

[2] Please see Supplier Diversity for an explanation of our revised reporting methodology.

DISCLOSURE	METRIC	SASB	2020	2021	2022
Certificates	ISO 9001	-	Not disclosed in 2020	43 certificates	View 43 certificates
	ISO 14001	-	Not disclosed in 2020	23 certificates	View 22 certificates
	ISO 50001	-	Not disclosed in 2020	Not disclosed in 2021	View 5 certificates
	ISO 28000	-	Not disclosed in 2020	Not disclosed in 2021	View 1 certificate
	IATF 16949	-	Not disclosed in 2020	22 certificates	View 26 certificates
	ISO/IEC 17025	-	Not disclosed in 2020	7 certificates	View 7 certificates
	Responsible Care	-	Not disclosed in 2020	Not disclosed in 2021	View 6 certificates
	GRS	-	Not disclosed in 2020	Not disclosed in 2021	View 1 certificate
	FAMI-QS	-	Not disclosed in 2020	Not disclosed in 2021	View 1 certificate
	FSSC	-	Not disclosed in 2020	Not disclosed in 2021	View 1 certificate
	IFS Food (Chapter 6)	-	Not disclosed in 2020	Not disclosed in 2021	View 1 certificate
	SEDEX / SMETA	-	Not disclosed in 2020	Not disclosed in 2021	View 1 certificate
Production by Reportable Segment	Production (metric tons (MT))	RT-CH-000.A	8,652,805	9,335,196	8,713,761

GLOBAL CERTIFICATIONS

We maintain global certifications for specific facilities and product lines. Customers can search across more than 120 certificates for Celanese products using the tool available on our website.

LIFE CYCLE ASSESSMENTS

Celanese uses LCAs to understand the environmental impact of our key products. Our analyses allow us to quantify the estimated environmental impacts of a product with a cradle-to-gate approach, ultimately enabling transparency to our stakeholders. Our robust process includes providing data on over 20 environmental indicators, including water consumption, land use, and ozone depletion in addition to climate change, and is conducted in accordance with ISO 14010 and ISO 14044 standards. Throughout 2022, we continued to increase the number of LCAs we perform and have completed LCAs for the majority of our products.

PRODUCT SAFETY AND STEWARDSHIP

SASB: RT-CH-320a.2

Celanese has a significant Chemical Safety and Regulatory communication program that leverages the ACC's Product Safety Code to guide our offerings. We provide Safety Data Sheets (SDS), Technical Data Sheets (TDS), safe handling guides, and regulatory summaries for our hazardous chemicals in addition to addressing our customers' technical and regulatory questions regarding the safe handling and compliant use of products. Moreover, we improve chemical product safety by implementing the industry-leading Responsible Care Product Safety Code developed by the ACC. We also collaborate with the ACC to publish safety facts and provide information written in an easy-to-understand manner, covering formaldehyde, acetic acid, and vinyl acetate, among others.

We take an active role in advocating for chemical safety and mitigating wider risks across the value chain. Celanese has a global team dedicated to managing chemical registrations and risk assessments, including REACH in Europe, K-REACH in Korea, Chemical Management Plan in Canada, and U.S. EPA Risk Assessments in the U.S. Our teams also help us to share best practices and lessons learned with our industry peers to continue to improve product stewardship of chemical and specialty materials worldwide.

Our Board oversees how product safety and stewardship risks are integrated into our core business strategy. The Environmental, Health, Safety, Quality, and Public Policy (EHSQPP) Committee of the Board makes recommendations for Key Performance Indicators (KPIs) to address key topics, such as workforce, process, and chemical safety; GHG reduction; and sustainability in manufacturing.

QUALITY GUIDING PRINCIPLES

We are committed to quality throughout the customer experience. This report highlights our effort to meet the requirements of our customers, engage and empower our employees, and drive value to achieve our vision of being the first-choice chemistry solution source for our customers.

STEM CELL AND ANIMAL TESTING PRACTICES

Neither Celanese Corporation nor any of its controlled subsidiaries have performed research using human stem cells or fetal tissue in the past four years, and we do not fund or participate in external studies that use human stem cells or fetal tissue. We engage in limited animal testing through accredited third-party labs to promote product safety, address product stewardship requirements, and meet government regulations.

SUPPLIER DIVERSITY

Our Supplier Diversity Program supports certified diverse businesses, including underrepresented groups such as minorities, women, veterans, disabled, and LGBTQ+. Celanese tracks economic impact data using the Regional Input-Output Modeling System (RIMS II), which tracks our positive economic impact.

In 2022, we revised our methodology for calculating economic impact results; our economic impact data now excludes small and non-certified businesses, and only includes data from business activity with certified diverse companies. Our Supplier Diversity Program supported approximately $13.6 million in wages paid to individuals employed by a certified diverse business. Our business activity with certified diverse companies supported the creation or retention of approximately more than 420 jobs. The economic impact assessment we have undertaken highlights how spending with certified diverse businesses sets off a series of additional benefits to subcontractors, which in turn generates a net positive impact on the economy. As a member of the largest national supplier development councils, which includes National Minority Supplier Development Council (NMSDC), Women's Business Enterprise National Council (WBENC), the National LGBT Chamber of Commerce (NGLCC), DisabilityIN, and the National Veterans Business Development Council (NVBDC), we are helping to advance the agenda of providing equitable access to procurement opportunities for all categories of certified diverse businesses. Similarly, our partnerships with regional and national business councils support our objective to provide education about our procurement process and information about business opportunities to companies that are diverse.

SUSTAINABLE PROCUREMENT POLICY

In 2022, Celanese published a Sustainable Procurement Policy for our suppliers to complement our Third-Party Code of Conduct. The policy outlines our expectations for suppliers to adhere to applicable local legislation and regulations regarding human rights and the environment in the supply chain. We expect third-party suppliers to develop and implement transition plans to reduce their impact on the environment.

SUPPLIER ASSESSMENT

Celanese has a large variety of suppliers across a highly complex and diverse global supply chain. We are continuing to enhance our supplier risk assessment process to support our strategic sourcing process. By 2025, we aim to assess key suppliers on environmental and social sustainability-related criteria, which represent more than 90% of our 2022 global procurement raw material spend. As an output of our efforts, we developed an annual ESG Supplier Risk Survey in 2021 to document the ESG activities of our top suppliers, representing approximately 50% of our annual raw material spending. We plan to actively engage with key raw material suppliers, identify opportunities, and develop pathways to reduce the carbon footprint of our procured goods and services.

SUPPLIER PARTNERSHIP GUIDE

Our "How to do Business with Celanese" supplier partnership guide outlines potential opportunities in our Supplier Diversity Program, supplier requirements, terms and conditions, and areas of partnership.

CONFLICT MINERALS POLICY AND DISCLOSURES

Celanese complies with applicable laws and regulations regarding the use of conflict minerals sourced from covered countries. Our Statement on Responsible Sourcing of Minerals outlines our approach to sourcing responsibly. We have a robust process in place designed to identify the risks, and we report due diligence actions taken to manage those risks with our suppliers in our annual Conflict Minerals Disclosure and Report filed with the U.S. Securities and Exchange Commission.

MODERN SLAVERY STATEMENT

As a signatory to the United Nations Global Compact, we are committed to conducting business in an ethical and responsible manner, including in accordance with the Ten Principles of the United Nations Global Compact. We continuously strive to embed respect for human rights as an integral element of our corporate culture. This statement is in accordance with section 54 of the United Kingdom Modern Slavery Act 2015 and the California Transparency in Supply Chains Act of 2010 and outlines our efforts to prevent slavery and human trafficking from taking place within our business or supply chains. As part of our trade compliance processes, we check whether persons, companies, or organizations appear on sanctions lists and whether there are business processes with business partners from or in countries under embargo.

For additional information, please see our Modern Slavery Statement.

GERMAN SUPPLY CHAIN ACT

The German Supply Chain Due Diligence Act, or LkSG, will be applicable to German entities of Celanese in 2024. The LkSG requires covered companies to abide by certain human rights and environmental due diligence obligations in the supply chain and to take appropriate preventive and remedial measures based on their risk analysis. We are working to adapt our existing risk management procedures accordingly, including utilizing a digital platform to better understand our suppliers' environmental and social sustainability impacts.

We also expect our suppliers, vendors, and contractors to follow the same ethical and legal standards that Celanese follows. In our Sustainable Procurement Policy, together with our Third-Party Code of Conduct, we expressed our expectations on critical areas of corporate responsibility, environmental performance, human rights practices, and conflict minerals policies. We understand that the risk of human rights violations in supply chains is not static, and we will continue our efforts to mitigate that risk.

SUSTAINABLE SOURCING OF WOOD PULP

Celanese works to integrate ethical and environmental factors into our supplier selection process. We have a Sustainable Sourcing policy that limits the sourcing of wood pulp used in our cellulosic products to suppliers that are certified by accredited partners, such as the Forest Stewardship Council (FSC) or the Programme for the Endorsement of Forest Certification (PEFC).

When sourcing wood pulp, our policy requires that we consider only those suppliers that:

- Focus on reduced resource consumption to provide products in a socially responsible way;
- Promote sustainable forestry and protect biodiversity through improvement of waste-management processes and reduction of environmental impact;
- Responsibly source their wood and pulp from accredited partners or suppliers that themselves avoid high conservation value forests or illegal harvesting;
- Increase transparency and collaboration by providing assurances, certifications, and knowledge of forestry stewardship;
- Provide training and leadership to their employees and to third parties for better engagement and alignment with sustainable operations;
- Value continued learning by reflecting on current gaps and improving their own process; and
- Utilize health and safety to protect their forest workers.

THIRD-PARTY CODE OF CONDUCT

Celanese strives to share its ethical and legal commitments with all stakeholders. We design and share our Third-Party Code of Conduct to disclose our expectations on ethical business practices, labor and human rights, sustainability, and information stewardship.

Preserving the Environment

Climate and Air Emissions – Energy – Water – Waste

BASELINE VALUES FOR OUR ENVIRONMENTAL TARGETS

2030 TARGETS	2021 INTENSITY BASELINE VALUES	2022 INTENSITY VALUES
30% Reduction in Scope 1 and Market-based Scope 2 Greenhouse Gas (GHG) Intensity (metric tons (MT) CO_2e/MT) ✓	0.406	0.412
10% Reduction in Total Net Energy Intensity (thousand BTU (MBTU)/lbs.) ✓	2.38	2.45
10% Water Consumption Intensity Reduction (cubic meters (m^3)/metric tons (MT) product) ✓	1.95	2.04
15% Total Waste Disposal Intensity Reduction (metric tons (MT)/MT product) ✓	0.0079	0.0090

All 2030 environmental intensity reduction targets are based on production, which is defined as including all intercompany trade equaling a mass balance of all gross production whether internal or externally sold for all operated and owned assets.

This Index excludes environmental data associated with the acquisition of the M&M business from DuPont. Once the data from calendar years 2021 to 2022 is collected, synthesized, and assured according to Celanese reporting standards, we expect M&M data to be incorporated into these metrics, with an updated 2021 baseline for future metrics and progress for 2022 and 2023.

DISCLOSURE	METRIC	SASB	2020	2021	2022
Greenhouse Gas Emissions	Gross Scope 1 (metric tons (MT) CO_2e) ✓	RT-CH-110a.1	2,275,903	2,375,026	2,311,481
	Gross Market-based Scope 2 (metric tons (MT) CO_2e) ✓	-	1,371,062	1,417,089	1,282,231
	GHG Emissions from Steam and Electricity Sales and Exports (metric tons (MT) CO_2e)	-	186,737	178,696	192,211
	Net Global Scope 1 and Market-based Scope 2 Emissions (metric tons (MT) CO_2e)	-	3,460,228	3,613,419	3,401,500

✓ Denotes that ERM CVS performed limited assurance of our 2021 and 2022 environmental numbers, which serve as the bases for our 2030 GHG, Energy, Water, and Waste targets.

DISCLOSURE	METRIC	SASB	2020	2021	2022
Greenhouse Gas Emissions	Other Refrigerant GHG Emissions (metric tons (MT) CO_2e)	-	35,368	67,538	58,200
	Discussion of Long-Term and Short-Term Strategy or Plan to Manage Scope 1 Emissions, Emissions Reduction Targets, and an Analysis of Performance Against Those Targets	RT-CH-110a.2	2020/21 Sustainability Report, Climate	2021–2022 Sustainability Report, Preserving the Environment	2022–2023 Sustainability Report, Preserving the Environment
	Emissions Covered Under Emissions-Limiting Regulations (metric tons (MT) CO_2e), (%)	RT-CH-110a.1	105,406 (4.6%)	111,115 (4.7%)	88,317 (3.8%)
Air Quality	Air Emissions of NOx (excluding N_2O) (metric tons (MT))	RT-CH-120a.1	1,034	877	1,091
	Air Emissions of SOx (metric tons (MT))	RT-CH-120a.1	59	58	63
	Air Emissions of Volatile Organic Compounds (VOCs) (metric tons (MT))	RT-CH-120a.1	2,578	2,900	2,700
	Air Emissions of Hazardous Air Pollutants (HAPs) (metric tons (MT))	RT-CH-120a.1	313	246	367
	Air Emissions of Total Particulate Matter (PM) (metric tons (MT))	-	Not disclosed in 2020	Not disclosed in 2021	220
Energy Management	Total Energy Consumed (million BTU (MMBTU)) ✓	RT-CH-130a.1	49,043,884	51,661,145	50,164,693
	Amount of Energy Sold or Exported (million BTU (MMBTU))	-	2,452,486	2,799,552	3,077,044
	Net Energy Consumed[1] (million BTU (MMBTU)) ✓	-	46,591,398	48,861,593	47,087,649
	Grid Electricity (million BTU (MMBTU)), (%)	RT-CH-130a.1	4,208,484 (8.6%)	4,809,175 (9.3%)	4,398,414 (8.8%)
	Renewable Energy (million BTU (MMBTU)), (%)	RT-CH-130a.1	10,284 (0.02%)	23,780 (0.046%)	266,763 (0.53%)
	Total Self-generated Energy (million BTU (MMBTU))	RT-CH-130a.1	63	391	531

[1] Inclusive of renewable and non-renewable energy (million BTU (MMBTU)).

✓ Denotes that ERM CVS performed limited assurance of our 2021 and 2022 environmental numbers, which serve as the bases for our 2030 GHG, Energy, Water, and Waste targets.

DISCLOSURE	METRIC	SASB	2020	2021	2022
Energy Management	Total Purchased Energy (%)				
	Electricity (%)	-	9%	9.3%	9.3%
	Steam (%)	-	17%	19.6%	19.7%
	Fuels for Combustion (%)	-	71%	70.3%	70.1%
	Other (%)	-	3%	0.8%	0.9%
	Renewable Energy Supply (megawatt hour (MWh))	-	Not disclosed in 2020	6,969	78,180
	Displaced (metric tons (MT) CO_2e) by Renewable Energy Supply	-	Not disclosed in 2020	2,897	31,864
Water Management	Total Water Withdrawn (thousand cubic meters (m^3))	RT-CH-140a.1	150,097	165,635	160,529
	Groundwater Renewable Withdrawn (%)	RT-CH-140a.1	7.4%	6.9%	6.0%
	Surface Water Withdrawn (%)	RT-CH-140a.1	78.6%	73.8%	73.4%
	Sourced from Third Party (%)	RT-CH-140a.1	14%	19.3%	20.4%
	Total Water Discharged (cubic meters (m^3))	-	Not disclosed in 2020	147,409	142,741
	Onsite Disposal System and Brackish Water Discharged (%)	-	Not disclosed in 2020	0.6%	0.7%
	Surface Water Discharged (%)	-	Not disclosed in 2020	88.9%	88.6%
	Discharged to Third Party (%)	-	Not disclosed in 2020	10.5%	10.7%

DISCLOSURE	METRIC	SASB	2020	2021	2022
Water Management	Total Water Consumed (thousand cubic meters (m^3)) ✓	RT-CH-140a.1	14,740 (2.06% of water consumed from regions with high or extremely high baseline water stress as defined by the World Resources Institute Aqueduct Water Atlas)	18,226 (13.32% of water consumed from regions with high or extremely high baseline water stress as defined by the World Resources Institute Aqueduct Water Atlas)[1]	17,788 (13.27% of water consumed from regions with high or extremely high baseline water stress as defined by the World Resources Institute Aqueduct Water Atlas)
	Number of Incidents of Non-Compliance Associated With Water Quality Permits, Standards, and Regulations	RT-CH-140a.2	0	2	3[2]
	Description of Water Management Risks and Discussion of Strategies and Practices to Mitigate Those Risks	RT-CH-140a.3	2020/21 Sustainability Report, Water	2021–2022 Sustainability Report, Treating Water as a Vital Resource	2022–2023 Sustainability Report, Strengthening Water Stewardship
Waste Management	Total Hazardous and Non-Hazardous Waste Generated (metric tons (MT)) ✓	-	Not disclosed in 2020	137,790	134,114
	Hazardous Waste Generated (metric tons (MT)), (recycled %)[3] ✓	RT-CH-150a.1	50,674 (8.4% recycled)	54,594 (8.2% recycled)	53,405 (7.5% recycled)
	Non-Hazardous Waste Generated (metric tons (MT)), (recycled %) ✓	-	59,213 (25% recycled)	82,835 (25% recycled)	80,709 (32% recycled)
	Hazardous Waste Generated From Remediation Activities or Other Extraordinary Events (metric tons (MT))	-	Not disclosed in 2020	598	782
	Non-Hazardous Waste Generated From Remediation Activities or Other Extraordinary Events (metric tons (MT)	-	Not disclosed in 2020	10,964	10,815
	Total Weight of Non-Hazardous and Hazardous Waste Recovered (metric tons (MT))	-	Not disclosed in 2020	Not disclosed in 2021	29,832[4]
Environmental Training	Manufacturing Workforce Across All Locations Who Received Training (internally or externally on environmental issues) (%)		~100%	~100%	~100%

[1] Restated due to a calculation error observed while aggregating calendar year 2022 water consumption data.

[2] Number of incidents of non-compliance associated with water quality permits, standards, and regulations include the number of formal enforcement actions received for observed and reported water non-compliance issues.

[3] Percentage recycled excludes waste managed through energy recovery.

[4] Hazardous waste excludes energy recovery.

✓ Denotes that ERM CVS performed limited assurance of our 2021 and 2022 environmental numbers, which serve as the bases for our 2030 GHG, Energy, Water, and Waste targets.

REPORTING METHODOLOGY, BOUNDARY, AND DEFINITIONS

Greenhouse Gas

- Global Scope 1 emissions reported are those calculated from Celanese-owned or operated sources within Celanese manufacturing facilities and for administration and R&D facilities with 100 or more Celanese employees and contractors combined during the calendar year 2022. Manufacturing facilities include those facilities manufacturing products and do not include construction activities or those activities associated with major capital projects.
- Global Market-based Scope 2 GHG emissions reported are from purchased utilities (e.g., electricity, steam, other utilities) for Celanese-owned or operated sources within Celanese manufacturing facilities during calendar year 2022 using site-specific and published emission factors. This value excludes Scope 2 GHG emissions from administrative locations, the use of temporary power to operate equipment, remediation activities at offsite activities, and other maintenance activities occurring offsite (e.g., pipeline activities).
- GHG emissions from steam and electricity sales and exports are emissions from the sales to third-party manufacturing units not owned or operated by Celanese, which include co-located site partners and electrical grid systems using GHG protocol methodologies for combined heat and power systems.
- Net global Scope 1 and Scope 2 emissions are Scope 1 and Market-based Scope 2 emissions defined above less GHG emissions from the sale or export of steam and electricity.
- Other refrigerant GHG emissions are from non-Kyoto Protocol refrigerants emissions during calendar year 2022.
- The percentage covered under emissions-limiting regulations are associated with Celanese-owned or operated manufacturing facilities located in Europe and a part of the European Trading Scheme (ETS). Manufacturing facilities include those facilities manufacturing products and do not include construction activities or those activities associated with major capital projects.

Air

- NOx, SOx, particulate matter (PM), and VOC emissions are associated with manufacturing facilities. Reported NOx, SOx, PM, and VOC emissions are consistent with government-issued permits/licenses to operate and aligned with facility permit basis documents and agency reporting requirements. VOC emissions include point and fugitive emissions and reported emissions from spills and releases.
- HAP emissions associated with manufacturing facilities. Reported HAP emissions are consistent with government-issued permits/licenses to operate and aligned with facility permit basis documents and agency reporting requirements.

Energy

- Total energy consumed is the aggregate of gross purchased energy, inclusive of direct fuel usage, purchased electricity, heating, cooling, and steam energy, from Celanese-owned or operated sources within Celanese manufacturing facilities during the calendar year 2022. Manufacturing facilities include those facilities manufacturing products and do not include construction activities or those activities associated with major capital projects. This value excludes energy from administrative locations, the use of temporary power to operate equipment, remediation activities at offsite activities, and other maintenance activities occurring offsite (e.g., pipeline activities).
- The amount of energy sold or exported is from the sale of steam and electricity to third-party manufacturing units not owned or operated by Celanese, which include co-located site partners and electrical grid system during the calendar year.
- Net energy consumed is the gross energy consumed defined above less energy sold or exported from the sale or export of steam and electricity during the calendar year 2022.
- Amount and percentage of grid electricity is the amount of purchased grid electricity consumed divided by total gross energy consumption for the calendar year.
- Amount and percentage of renewable energy is the amount of energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro, and biomass divided by total gross energy consumption for the calendar year provided. Renewable power is purchased through a power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs) or certificates of origin.
- Amount of Celanese-generated electricity from nonfuel-based sources (e.g., onsite solar cells, onsite wind turbines) at manufacturing facilities in aggregate during the calendar year. Manufacturing facilities include those facilities manufacturing products and do not include construction activities or those activities associated with major capital projects. Gross energy where Celanese converts to other energy sources (e.g., natural gas combustion to steam) is excluded.

Water

- Total water withdrawn, total water consumed, and percentage of each in regions with high or extremely high baseline water stress of water was withdrawn is applicable to manufacturing facilities.

Waste

- Hazardous waste generated represents the amount of hazardous waste generated, as defined by the local jurisdiction, at Celanese-owned or operated manufacturing plants globally or at joint ventures where Celanese has operational control.
- Non-hazardous waste generated represents the amount of non-hazardous waste generated, as defined by the local jurisdiction, at Celanese-owned or operated manufacturing plants globally or at joint ventures where Celanese has operational control.
- Hazardous waste generated does not include waste generated from remediation activities or other extraordinary events.
- Non-hazardous waste generated does not include waste generated from remediation activities or other extraordinary events.
- 2020 hazardous and non-hazardous waste values are restated due to historical calculation corrections executed during the ERM CVS limited assurance review process.
- Total waste disposed intensity represents the total amount of hazardous and non-hazardous waste disposed, not including recycling efforts, divided by production.

CLIMATE POLICY

Climate change continues to be one of the most challenging and significant issues facing the world today. We recognize the nature of our operations is energy and fossil fuel-intensive, and we are investing in solutions to reduce our climate impacts. We support multilateral approaches, such as the Paris Agreement, and oversee projects to increase energy efficiency, improve reliability, and recover and reuse waste heat. We also support our purchase of renewable energy and more sustainable raw materials where possible. Please see our Climate Policy to learn more.

EHS POLICY AND GUIDING PRINCIPLES

Celanese is committed to protecting the environment and preserving the health and safety of our employees, contractors, and communities. We have developed six principles that form the foundation of our Environmental, Health, and Safety (EHS) policy, enabling safe and environmentally responsible operations across our processes. Our policy also extends to the effective management of our overall environmental risk, including those applicable to our energy consumption, waste management, air emissions, and water usage. As a result, more than 50% of our operations have been ISO 14001 certified and six of our manufacturing and administration facilities continue to implement certified ISO 50001 energy management systems. We also created a database that makes our 120+ certifications accessible by location, type, or name. Please see our EHS Policy and Guiding Principles to learn more.

CORPORATE ENVIRONMENTAL REPORTING STANDARD

In 2022, we adapted a new process of collecting and managing data for transparent reporting throughout the integration of M&M data. Alongside a professional advisor, we developed a corporate standard that clearly defines the metrics, boundaries, definitions, and methodologies for facility and corporate-level sustainability data collection and reporting. The standard also outlines procedures to drive consistency year-over-year. These updates are intended to help us reach our goals through careful monitoring and reporting of our performance.

REINFORCING OUR ENERGY REDUCTION PARTNERSHIPS

With a combination of strong energy management systems (EnMS) and energy reduction projects, we believe that a key pillar to sustainability and carbon reduction is energy efficiency. In 2022, we renewed our partnership with the U.S. Department of Energy (DOE) Better Plants Program, which aims to drive improvement in energy efficiency across U.S. industries. In collaboration with this program, we have adjusted our objective to reflect a further 10% energy intensity reduction goal for U.S. facilities, aligned with our 2030 enterprise-wide goal of a 10% net energy reduction by 2030.

In recognition of our energy efficiency efforts, we are enhancing our ENERGY STAR partnership by renewing the ENERGY STAR Challenge for Industry for all 32 of our Celanese manufacturing facilities worldwide. The ENERGY STAR Challenge for Industry is a global call-to-action for industrial facilities to reduce their energy intensity by 10% within five years, with manufacturing facilities receiving individual recognition for achieving this goal. Since 2018, five Celanese facilities have already received Challenge for Industry recognition (Narrows, Virginia; Lanaken, Belgium; Bay City, Texas; Bishop, Texas; and Frankfurt, Germany). With all legacy Celanese facilities in Germany being ISO 50001 certified for energy management, Celanese has also initiated work to implement the DOE 50001 Ready EnMS based on ISO 50001, with the aim to become DOE 50001 Ready Program recognized at our Narrows, Virginia, facility.

GHG INVENTORY METHODOLOGY

Scope 1

We calculate our Scope 1 GHG emissions using the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard as a guide. The organizational boundaries for this report align with the Operational Control approach outlined in the Greenhouse Gas Protocol for Celanese manufacturing facilities. Following Scope 1 Guidance for Direct Emissions, we first conducted an inventory of Celanese-owned or operated emission sources within Celanese manufacturing facilities. Example sources of Scope 1 emissions are Celanese onsite combustion and energy sources (e.g., cogeneration units, boilers, furnaces), mobile sources, process emissions (e.g., Kyoto Protocol refrigerants, fugitive emissions, leaks, process emissions), landfills, onsite vent gas abatement sources, waste incinerations, and wastewater treatment plants. For each source at the applicable facilities, we estimated reported gross Scope 1 emissions using a combination of actual or estimated activity rates based on best-engineering judgments combined with emissions factors. These emissions factors are based on sampling, site-level factors, or published data sets, such as the European Environment Agency (EEA), U.S. EPA, default higher heating values for purchased fuels, and global warming potential values from the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report.

Scope 2

For gross Market-based Scope 2 indirect emissions, we quantified the amount of purchased utilities (e.g., electricity, steam, other utilities) for Celanese-owned or operated manufacturing facilities (excluding administrative locations), the use of temporary power to operate equipment, remediation activities at offsite locations, and other maintenance occurring offsite (e.g., pipeline activities), combined with published or site-specific emissions factors of sources of steam and electricity purchased from third parties.

Scope 3

Our next GHG priority is to assess and develop a reduction strategy using our enhanced set of emissions sources and commercially available abatement technologies. Celanese is committed to understanding our Scope 3 emissions sources and is developing a framework and roadmap to identify, quantify, and collect Scope 3 emissions. Details of Scope 3 definitions (e.g., exclusions), methodology, roles and responsibilities, data verification and quality control, emissions factor sources, and reporting thresholds are expected to be documented in a Scope 3 Inventory Management Plan to be drafted in 2023–2024.

ADJUSTMENTS

Celanese also manufactures steam and electricity for onsite, co-located site partners and electrical grid systems not owned or operated by Celanese. These Scope 1 emissions were calculated for the volume of steam and electricity sold to third parties using the calculation methodologies specified in the Greenhouse Gas Protocol Allocation of GHG Emissions from a combined heat and power plant, where steam and/or electricity is sold. Net Scope 1 and Scope 2 emissions were then estimated by aggregating gross Scope 1 and gross Market-based Scope 2 emissions less emissions attributable to utilities sold to external parties.

WATER MANAGEMENT POLICY AND PROGRAM

Our global Water Management Program focuses on the principles outlined in our Water Management Policy including reducing water consumption through efficient practices, such as the reuse and recycling of water. Our Water Stewardship Committee guides the water risk-assessment process, provides water management guidance, and supports the integration of water risk into the enterprise risk management process.

WASTE MANAGEMENT PROGRAM

Our global Waste Management Program identifies opportunities to reduce waste, starting with high-volume/high-cost waste streams. Our EHS teams follow our Pollution Prevention Hierarchy to examine whether waste would be best managed by reuse, energy recovery, treatment, or disposal techniques. When practical, Celanese employs reuse, recovery, or treatment methods to reduce the company's environmental footprint and move the output of production along a life cycle of usefulness. If Celanese cannot reuse a recyclable product, we engage our partners in identifying other sustainable methods of use.

OPERATION CLEAN SWEEP PROGRESS

Celanese continues to maintain its Operation Clean Sweep (OCS) pledge to help prevent plastic pellet loss into the environment. In response to the Plastics Europe rollout of an international "Operation Clean Sweep Certification Program," Celanese developed a strategy to successfully complete audits of applicable facilities and obtain the External Audit Certification by the end of 2024. Additionally, in response to the Plastics Industry Association (PLASTICS) and the ACC's launch of the "OCS Blue Verification Program" on September 27, 2023, Celanese plans to successfully achieve OCS Blue Verification for the required facilities by 2025.

We have also implemented multiple initiatives and shared best practices across our facilities. Our Pensacola, Florida, facility developed a pilot initiative with notable success, using a systematic and disciplined approach to identifying waste sources to achieve a 40% reduction in process waste in 2022 compared to 2017. In addition, our Edmonton, Canada, facility has implemented onboarding, annual refresher OCS training, and quarterly OCS audits. A new high-level alarm has been installed on major process vessels to prevent overfilling, with additional alarms planned in 2024. The facility has also updated procedures to include 'OCS' wording and replaced or upgraded housekeeping equipment.

Investing in Our People and Communities

Human Capital – Safety and Stewardship – Community Relations

DISCLOSURE	METRIC	SASB	2020	2021	2022
Human Capital Metrics	Board Members Who Are Women (%)	-	50%	55%	50%
	Board Members Who Are Racially or Ethnically Diverse (%)	-	10%	10%	10%
	Senior Leadership Who Are Women (%)	-	43%	38%	44%
	Senior Leadership Who Are People of Color (%)	-	Not disclosed in 2020	Not disclosed in 2021	13%
	U.S. Management Who Are People of Color (%)	-	29%	34%	34%
	Average Employee Age (years)	-	44	43	43
	Overall Voluntary Attrition Rate (%)	-	5%	8%	9.2%
	Women in the Global Workforce (%)	-	24%	24%	25%
	People of Color in the U.S. Workforce (%)	-	30%	31%	33%
	Global Employees Represented by Unions, Work Councils, or Both (%)	-	50%	46%	47%

DISCLOSURE	METRIC	SASB	2020	2021	2022
Labor and Human Rights	Operational Sites Covered by an Employee Health and Safety Risk Assessment (%)	-	~100%	~100%	~100%
	Total Workforce Across All Locations (i.e., Workforce) Represented in Formal Joint Management-Worker Health and Safety Committees (%)	-	~100%	~100%	~100%
	Workforce Who Are Covered by Formal Collective Agreements Concerning Working Conditions (%)	-	50%	46%	47%
	Workforce Who Are Covered by Formally Elected Employee Representatives (%)	-	50%	46%	47%
	Workforce Who Received Regular Performance and Career Development Reviews (%)	-	Not disclosed in 2020	Not disclosed in 2021	97%
	Workforce Who Received Training on Preventing Discrimination and Human Rights Violations (%)	-	~98%	~95%	~100%
Safety Metrics	Recordable Lost Time (LTIR)	-	0.07	0.05	0.03
	Days Away From Work Incident Rate (DAWIR) for Direct Employees	-	0.08	0.06	0.07
	Days Away From Work Incident Rate (DAWIR) for Contract Employees	-	0.03	0.03	0.00
	Total Recordable Incident Rate (TRIR) for Direct Employees	RT-CH-320a.1	0.22	0.18	0.28
	Total Recordable Incident Rate (TRIR) for Contract Employees	RT-CH-320a.1	0.19	0.15	0.13
	Fatality Rate for Direct Employees	RT-CH-320a.1	0.01	0.00	0.00
	Fatality Rate for Contract Employees	RT-CH-320a.1	0.03	0.00	0.00
	Description of Efforts to Assess, Monitor, and Reduce Exposure of Employees and Contract Workers to Long-term (Chronic) Health Risks	RT-CH-320a.1	2020/21 Sustainability Report, Workforce Health and Safety	2021–2022 Sustainability Report, Investing in Our People and Communities	2022–2023 Sustainability Report, Stewardship: Health and People Safety

DISCLOSURE	METRIC	SASB	2020	2021	2022
Operational Safety, Emergency Preparedness and Response	Number of Process Safety Incidents (PSIC)	RT-CH-540a.1	8	16	11
	Tier 1 and 2 Process Safety Incident Rates (per 200,000 hours)	RT-CH-540a.1	0.077	0.137	0.105
	Process Safety Incident Severity Rate (PSISR)	RT-CH-540a.1	0.278	0.009	0.086
	Number of Transport Incidents (%)	RT-CH-540a.2	Not disclosed in 2020	11%	5%
	All Operational Sites Covered by an Employee Health and Safety Risk Assessment (%)	-	Not disclosed in 2020	Not disclosed in 2021	~100%
	Total Workforce Across All Locations Represented in Formal Joint Management Worker Health and Safety Committees (%)	-	Not disclosed in 2020	Not disclosed in 2021	~100%
Community Investment	Volunteer Hours	-	Not disclosed in 2020	~120,000	~123,000
	Contributed to Community Organizations ($)	-	Not disclosed in 2020	~1.6 million	~2.2 million
	Discussion of Engagement Processes to Manage Risks and Opportunities Associated With Community Interests	RT-CH-210a.1	2020/21 Sustainability Report, Community Relations	2021–2022 Sustainability Report, Investing in Our People and Communities	2022–2023 Sustainability Report, Engaging Our Communities

CALIFORNIA TRANSPARENCY ACT

Our policies expect that all employees and partners comply with our prohibition of child labor, forced labor, and all other forms of abuse.

DONATIONS AND VOLUNTEERING

At Celanese, we contribute to our community through the Celanese Foundation, an employee-led nonprofit (501©(3)), and our formalized employee volunteer program. Every year we offer employees 16 hours of paid volunteer time to encourage community engagement.

ENVIRONMENTAL, HEALTH, OCCUPATIONAL SAFETY, AND PROCESS SAFETY

SASB: RT-CH-320a.2

Our values and guiding principles serve as the foundation of our stewardship program—steering our actions and decision-making to create a safe, healthy, and environmentally responsible workplace for all. Our management, employees, and contractors work to adhere to the following guiding principles:

- Take Leadership Actions
- Operate in Compliance
- Develop Effective Management Systems and Procedures
- Operate Safely and Reliably
- Manage Risk

ENVIRONMENTAL, HEALTH, SAFETY, QUALITY, AND PUBLIC POLICY COMMITTEE CHARTER

SASB: RT-CH-320a.2

Our EHSQPP Committee oversees our practices and maintains oversight responsibility for EHS topics. See additional details about the membership and authority of the committee in the charter, which outlines the purpose and expectations.

SAFETY AT CELANESE

Performing effective incident investigations and learning from near-miss events continues to allow Celanese to identify causes and to improve our stewardship programs and management systems, with a goal of reducing the frequency of repetition of similar incidents across the organization.

Within Celanese our values guide our work, and they form the foundation for all we do. Our values start with People and Safety. These two values are centered on our dedication and commitment to each other and to creating a safe and healthy workplace. Employee participation and engagement in our stewardship programs are essential components of our recipe for achieving performance excellence. **Across Celanese, 100% of our manufacturing facilities include employee-based stewardship committees** where employees and often contractors work together to support each other and help us drive stewardship improvements. **We also see active employee participation in various risk assessments of process and work activities at 100% of our manufacturing facilities and laboratory locations**. Assessing and managing risks through the knowledge and experiences of employee-based teams is another component of our goal to create a safe and healthy workplace.

For Employees: Our employee Total Recordable Incident Rate (TRIR) of 0.28 in 2022 increased due to a deterioration of performance attributed to significant transformational change experienced during the second half of the year through acquisition of the M&M business. As we proceed through the integration process, we have defined a comprehensive integration strategy to aid in the management of risk posed by change. We have also begun to introduce Human and Organizational Performance (HOP) principles into the leadership culture as part of a long-term comprehensive improvement strategy for stewardship.

In 2022, we continued to demonstrate an improvement trend with a Days Away from Work Incident Rate (DAWIR) of 0.04. This reflected a 42% reduction in days away from work incidents as compared to 2020 and a 20% reduction in these incidents from the previous year. **We also achieved a DAWIR of zero for contractor injuries in 2022**. This reflected a continuation of the achievement made in 2021. We attribute our performance in this area to implementation of a robust contractor safety management program.

EMPLOYEE WELLNESS PROGRAMS

To further support our diverse workforce, Celanese provides relevant health, welfare, and retirement benefits, as well as vacation and leaves for our employees and their families across the globe aligned with local market practice. In the U.S., approximately 97% of our employees are enrolled in health care benefits, and we provide basic life coverage to all eligible employees. Celanese also continually pursues opportunities to invest in the well-being of our employees and offers benefits that promote physical, mental, and financial health.

Examples of some of our cornerstone benefit offerings:

- 24/7 access to free mental health care through a confidential employee assistance program, plus a targeted vendor solution that connects employees with qualified clinicians more quickly and helps them cope with stress, anxiety, grief, and depression.
- Paid time off for every full-time employee. Additionally, each employee is provided two paid days off per year for volunteering in their community.
- Generous parental leave for moms and dads in the U.S. and the Netherlands who have welcomed a child to their family through birth or adoption.
- Private, onsite nursing rooms at most locations and free access to a service that helps them ship breast milk when they are traveling for business. Our employee assistance program provides additional support with parenting and relationship challenges and finding childcare.
- Mindfulness coaching programs that build resilience and inner strength for employees and support leaders in helping their teams manage stress.
- Our People Care Program, which aids employees affected by a disaster by helping with safety and immediate needs and provides access to resources necessary to recover.

In addition, we offer development programs to all employees to complement numerous other learning opportunities. Our global Talent Portal houses tools and resources that support each employee on their own career path and aid leaders in engaging daily with their teams through effective feedback, coaching, and development.

WORKABILITY

In early 2022, Celanese introduced WorkABILITY, a hybrid work approach that designates onsite collaboration days and work from home days for eligible employees across the globe.

WALK THE LINE PROGRAM

Our Walk the Line program addresses human performance through operational discipline, which works to reduce process safety incidents.

ANTI-DISCRIMINATION STATEMENT

Our Anti-Discrimination Statement outlines our guiding principles for fostering a work environment that advances inclusivity and equity, which remains a critical business priority for Celanese. For more information, please see our website.

PAY EQUITY

Celanese affirms its goal of pay equity, regardless of gender or race/ethnicity, which includes the regular analysis of our pay practices by third parties to confirm our goal of making equitable decisions.

DUTCH DIVERSITY LEGISLATION

Celanese is proactively working to comply with the Dutch diversity legislation to set appropriate gender balance targets and outline an action plan to meet those goals related to Dutch entities.

Operating With Integrity

Corporate Governance and Risk Management – Cybersecurity

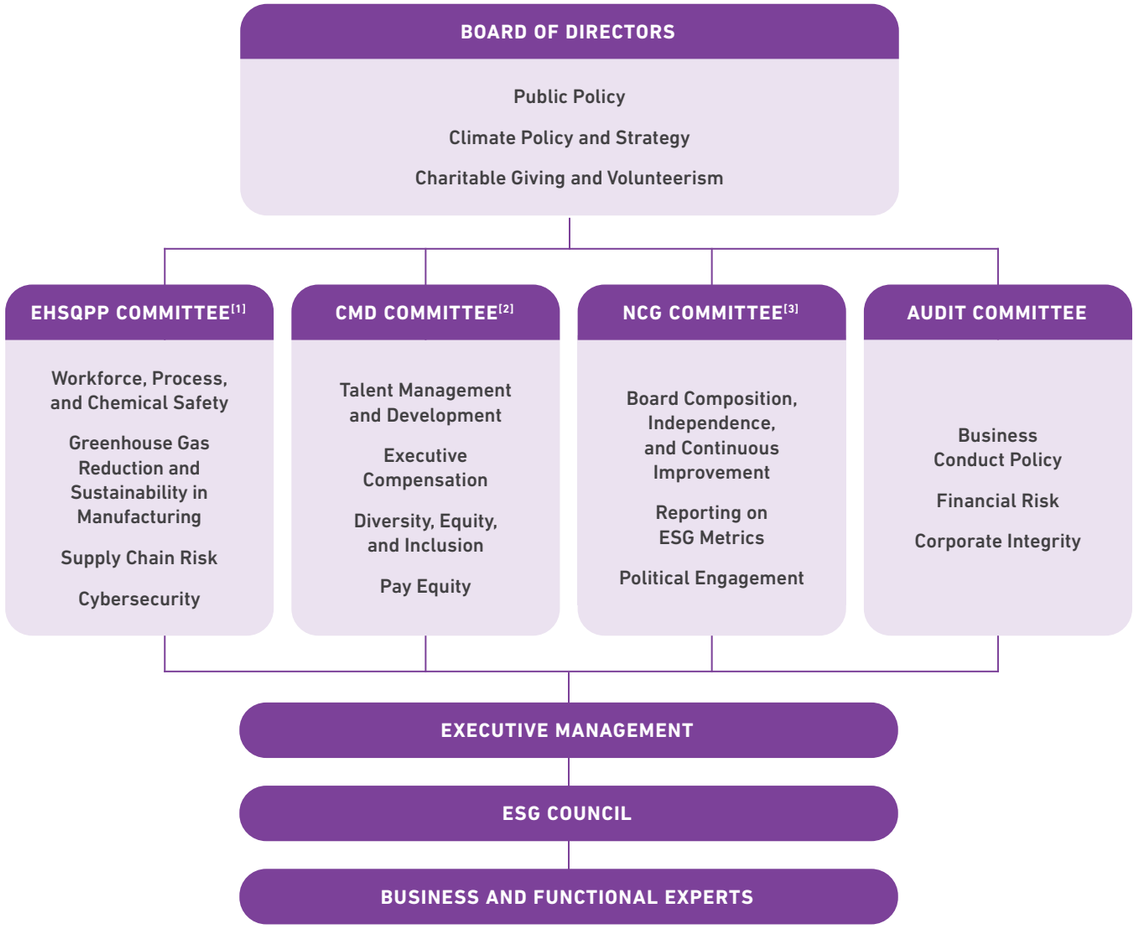
DISCLOSURE	METRIC	SASB	2020	2021	2022
Management of the Legal and Regulatory Environment	Discussion of Corporate Positions Related to Government Regulations and/or Policy Proposals that Address Environmental and Social Factors Affecting the Industry	RT-CH-530a.1	2020/21 Sustainability Report, Chemical Safety 2020/21 Sustainability Report, Integrity 2021 CDP Climate Change Response	2021–2022 Sustainability Report, Operating With Integrity Political Engagement Policy 2022 CDP Climate Change Response 2022 CDP Water Security Response	2022–2023 Sustainability Report, Operating With Integrity Political Engagement Policy 2023 CDP Climate Change Response 2023 CDP Water Security Response

OUR BOARD AND COMMITTEE MEMBERSHIP CHART

Our Board consists of 10 individuals with decades of experience in the chemical manufacturing industry. In addition to their expertise in chemical manufacturing, they bring a depth of expertise in healthcare, technology, and risk management.

[1] Environmental, Health, Safety, Quality, and Public Policy Committee
[2] Compensation and Management Development Committee
[3] Nominating and Corporate Governance Committee

Governance Structure Flow Chart



CORPORATE GOVERNANCE POLICIES

At Celanese, we are committed to maintaining effective corporate governance systems and have several policies in place that promote the long-term interests of our stakeholders, accountability, and public trust in the company.

- Audit Committee Charter
- Certificate of Amendment: Board Declassification
- Certificate of Amendment: Removal of Directors
- Certificate of Amendment: Common Stock
- Compensation and Management Development Committee Charter
- Corporate Governance Guidelines
- Director Independence Standards
- Lead Independent Director Policy
- Nominating and Corporate Governance Committee Charter
- Second Amended and Restated Certificate of Incorporation
- Sixth Amended and Restated Bylaws

THE ESG COUNCIL MEMBERS AND RESPONSIBILITIES

Our ESG Council consists of a cross-functional team of senior leaders from each company function and region. Chaired solely by our Senior Vice President and General Counsel, the ESG Council typically meets monthly to develop our strategy and make recommendations to executive leadership on key developments and next steps. The Council receives input from our 10 expert committees with experience across ESG Priority Topics and makes recommendations on standards and reporting, including KPIs and objectives for our Priority Topics. The Council continues to recommend new or updated targets and reporting as regulations, technology, and stakeholder interest continue to evolve.

STAKEHOLDER ENGAGEMENT

We regularly engage in dialogue with our customers, employees, shareholders, suppliers, and communities across Priority Topics to align our sustainability approach to stakeholder key interests. For example, our shareholder outreach program provides a forum for feedback on our approach to sustainability Priority Topics by communicating directly with management and Board members. Shareholder feedback has informed our climate policy and disclosures, approach to governance, and other developments. We plan to further engage our customers, employees, shareholders, suppliers, and communities strategically across our Priority Topics.

CYBERSECURITY AND INFORMATION PROTECTIONS

In support of adding Cybersecurity as a Priority Topic, in 2022, we published our new Cyber and Information Security Statement, which outlines methods of protecting against the risks of cyber threats through training and education, third-party assessment, and other key controls and oversight. Maintaining security of information and mitigating against the risk of cyber threats are key to protecting our proprietary information; safeguarding information about our employees, customers, and suppliers; and preserving the trust of parties with whom we do business.

- Data Privacy
- Information Management
- Privacy Policy
- Cybersecurity and Information Security Statement

LEGAL AND REGULATORY COMPLIANCE

SASB: RT-CH-530a.1

We are committed to contributing to the betterment of the communities in which we operate and strive to get ahead of emerging regulations and guidance. Celanese has well-established policies like our Business Conduct and Equal Employment Opportunity (EEO) **Policies that, among other things, expressly prohibit discrimination, harassment, and retaliation. Celanese also makes multiple reporting channels available globally for employees to report concerns, including potential violations of our policies or the law.**

In addition to these well-established policies, Celanese strives to operate in a safe and responsible manner across the globe and to align with evolving international guidance on topics such as forced labor, human rights, and environmental sustainability.

BUSINESS CONDUCT AND ETHICS POLICIES

The Celanese Business Conduct Policy sets out expectations on topics such as a respectful workplace/non-discrimination, anti-corruption, conflicts of interest, competition law, insider trading, human rights, modern slavery, sanctions, and political donations. Our Compliance Department, led by the Chief Compliance Officer, take steps to explain the Business Conduct Policy through annual training and other internal communications. In addition to the Business Conduct Policy, our Chief Executive Officer, Chief Financial Officer, and Chief Accounting Officer/Controller are also subject to a Financial Code of Ethics.

Our Third-Party Code of Conduct outlines the ethical, safety, environmental, and social expectations for those with whom we do business. We periodically update our policies and develop new policies to address emerging topics or risks as they arise. At Celanese, we strive to conduct our business with integrity and hold ourselves accountable to the highest ethical standards. The following topics are included in our anti-corruption, business code of conduct, and competition law policies, which serve as the foundation for how we strive to conduct business and compete in our industry. Our mandatory annual training courses, which cover each of the topics below, provide relevant situational examples to help employees increase their understanding of how to apply our policies during the course of their jobs and remind them of their compliance obligations.

In 2022, approximately 100% of our active, full-time employees completed the Business Code of Conduct training course, representing a 5% increase in completion rate year-over-year.

The following policies serve as the foundation for how we seek to conduct business and compete in our industry.

Anti-Corruption Policy

- Accurate and Complete Accounting Records
- Bribery of Government Officials
- Celanese-Sponsored Events Guidance
- Commercial Bribery
- Due-Diligence Onboarding Process and Contracts
- Gifting Guidelines and Improper Influence
- Hiring Third-Party Intermediaries and Red Flags
- Meals and Entertainment Guidance
- Monitoring Third-Party Intermediaries
- Prohibition Against Bribery
- Tips for Reviewing Third-Party Intermediary Invoices
- Travel Guidance

Business Conduct Policy

- Communication Guidelines
- Confidential Information
- Conflicts of Interest
- Equal Opportunity and Diversity
- External Communications
- Financial Integrity and Fraud
- Information Management
- Insider Trading
- Intellectual Property
- Investigations
- Labor Practices and Human Rights
- Protecting Information of Others
- Respectful Workplace
- Social Media Guidelines
- Trade Compliance

Competition Law Policy

- Bundling and Tying
- Careful Communications
- Distributor Arrangements
- Exchanging Information with Competitors, Customers, and Suppliers
- General Guidelines for Meeting with Competitors
- Guidelines for Intelligence Gathering
- Guidelines for Public Announcements
- Intellectual Property Considerations
- Managing Global Affiliates
- Market Allocation and Asset Utilization
- Mergers, Acquisitions, and Joint Ventures
- Non-Disparagement of Competitors
- Other Types of Collaborations Among Competitors
- Output Contracts, Reciprocal Agreements, and MFNs
- Predatory, Excessive, or Discriminatory Pricing
- Price Fixing and Bid Rigging
- Rebates
- Supplier Selection
- Swaps, Co-Supply, Offtake, and Tolling Agreements
- Trade Associations and Publications

Financial Code of Ethics

In 2022, the completion rate of the Business Conduct Policy, antitrust and competition laws, and anti-corruption training among active, full-time employees was approximately 100%.

COMPLIANCE TRAINING

Employee training is a continued focus for consistent management, awareness, and competency in multiple key areas. Employees are required to complete annual training courses on the Business Conduct Policy, antitrust/competition law, and anti-corruption. In addition, the Compliance Department delivers quarterly micro-learnings on a variety of topics including respectful workplace, bribery and corruption, trade compliance, and competition law, as well as additional topics that may be identified through our enterprise risk management process. We publish monthly compliance moments that highlight hot topics globally, and additional targeted ethics and compliance training is conducted on a regular basis.

COMPLIANCE QUARTERLY TRAININGS

In 2022, we hosted quarterly trainings, which included three 30-minute sessions per topic. During 2022 and the first half of 2023, approximately 1,000 employees attended various topics for the optional training, including:

- Anti-corruption
- Competing ethically
- Cybersecurity and compliance
- Respectful workplace

COMPLIANCE MOMENTS

Approximately 100% of full-time employees received monthly "Compliance Moments" emails containing specific topical reminders and trainings. These topics are determined based on relevant risks informed by whistleblower hotline reports or emerging risk trends. In 2022, we sent information on the following topics:

- Anti-corruption
- Balancing performance, pressure, and compliance
- Careful communications
- Compliance rules of the road
- Conflicts of interest
- Cybersecurity
- Gifts and entertainment
- Record Retention Policy
- Respectful workplace
- Unethical behavior

ANTI-MONEY LAUNDERING AND FRAUD

Celanese values honesty and integrity and depends on employees and third parties to act in good faith to help prevent, detect, and report activities that may be or appear to be illegal or fraudulent, including dishonestly obtaining money by hiding it within legitimate economic activities to make them appear legal. The company strictly prohibits all fraudulent activities, including kickbacks. The annual training course on our Business Conduct Policy includes questions about compliance with the company's anti-money laundering and anti-fraud efforts.

Approximately 100% of management level and above employees, as well as those whose duties may put them in a situation to face anti-corruption or competition law risks, have completed anti-corruption and competition law training.

ANTI-CORRUPTION

Celanese has robust anti-corruption policies, internal controls, and training programs tailored to our risk profile. Our third-party due diligence process is designed to mitigate the potential for corruption issues based on the geographies in which we operate. As part of the risk mitigation procedures, Celanese conducts appropriately tailored diligence on high-, medium-, and low-risk third parties and business partners. Subsequent steps are based on the type of service provided and risk profile. To guide our assessment of risk related to corruption in the countries where we operate, we utilize the Transparency International Corruption Perceptions Index, the Resource Guide to the Foreign Corrupt Practices Act published by the U.S. Department of Justice and the Securities and Exchange Commission, the guidance around the U.K. Bribery Act, and other guidance provided in the U.S. Department of Justice settlement documents and Evaluation of Corporate Compliance Programs published by the U.S. Department of Justice Criminal Division.

Corruption risk is typically highest with third parties in APAC and Latin America, including with respect to agents that develop new sales and markets, consultants who interact directly with government officials, and state-owned entities in high-risk industries. Our corruption screening process is layered and includes risk-tiering, questionnaires, enhanced due diligence reports, regional legal approval, regular monitoring, and contractual terms. For example, promptly after we closed the acquisition of the M&M business, we worked to integrate third-party intermediaries into the program and conduct due diligence. In addition, we also provide supplemental awareness training and offer an ethics/whistleblower hotline to facilitate reporting of any issues that may conflict with our Code of Conduct.

Our IA function periodically reviews the company's compliance with its anti-corruption program. The audit scope includes a risk-based review of gifts and entertainment expenditures associated with governmental and certain third-party entities.

As part of our Code of Conduct training, approximately 100% of our active, full-time employees were specifically trained on modern slavery, preventing discrimination, and human rights issues.

HUMAN RIGHTS AND EQUALITY POLICY

We are committed to supporting human rights and fair working conditions within our own operations and through our partners. Celanese endeavors to uphold the highest standards of integrity and ethics, and to comply with all applicable laws, rules, and regulations for all business and supply chain operations. Our comprehensive Business Conduct Policy outlines these standards and expectations for our employees and subsidiaries to increase awareness. In addition, we also provide supplemental awareness training and offer an ethics/whistleblower hotline to facilitate reporting of any issues that may conflict with our Code of Conduct.

Our Human Rights Policy is designed to align with the United Nations Global Compact and core elements of the United Nations Universal Declaration of Human Rights. It sets forth our commitment to respect human rights through all of our operations.

The Celanese Uyghur Forced Labor Prevention Act (UFLPA) program is designed to track our purchases buying or shipping from the Xinjiang region of China or engaging in business with entities on the restricted entity list. We have also recently updated our U.K. Modern Slavery Statement and our Human Rights Policy to reflect various changes to laws, including the UFLPA and the German Supply Chain Acts. Additionally, Celanese recognizes the conflict between Russia and Ukraine and has implemented plans to manage compliance in those regions.

Because Celanese is a global company, we are subject to regulations in the countries, regions, states, and local municipalities where we operate. To effectively manage risks associated with evolving regulations, we use an integrated management system to track regulation changes. We are a Responsible Care Company and are subject to conformity reviews every three years in accordance with Responsible Care requirements.

We understand that the risk of modern slavery is dynamic; therefore, we will continue to monitor this issue to mitigate risk where possible. We assess the effectiveness of our measures by reviewing staff training level on the subject matter, supply-chain auditing and verification, the education of our high-risk suppliers, and any modern slavery reports and respective remedial actions.

Political Engagement Policy

SASB: RT-CH-530a.1

Celanese strives to offer fair and transparent educational advocacy programs to acquaint elected officials with the work we do, the jobs we create, and the people behind the innovative solutions our company produces. Our policy promotes compliance with and advises Celanese directors, officers, and employees of their responsibilities and restrictions while engaging in the political process.

POLITICAL CONTRIBUTIONS

Celanese does not engage in any direct political spending; however, we believe it is in the best interest of the company and its stockholders to participate in the political process.

ERM Certification and Verification Services, Inc. (ERM CVS) was engaged by the Celanese Corporation to provide assurance in relation to the indicators presented in its 2022–2023 Sustainability Report and Index for the year ending December 31, 2022.

Please see the ERM CVS Independent Assurance Statement to the Celanese Corporation.

CERTAIN INFORMATION AND USE OF ESTIMATES

The historical information in this Sustainability Index primarily focuses on the operations of Celanese Corporation and its wholly owned subsidiaries, excluding the M&M acquired business for the fiscal and calendar year ended December 31, 2022, unless otherwise indicated in a specific context. Certain data points and metrics include information from years prior to 2022, where available, to illustrate historical performance and trends. Historical data reflects estimates and may be based on assumptions. The report uses qualitative descriptions and quantitative metrics to describe certain products, policies, and performance. The quantitative data related to the sustainability of our operations was collected through internal processes, instrumentation, engineering estimates, and other methods available to us. Many of the standards, methods, and metrics used in preparing this report and the metrics contained herein continue to evolve. Therefore, consistent with the continuous improvement approach that we routinely bring to our operations, we anticipate that our methods of collecting and reporting data may be modified or improved in the future to the extent that we have access to improved reporting methods, technology, or systems. Our internal auditors have assessed certain information in conformance with the Institute of Internal Auditors International Standards for the Professional Practice of Internal Auditing, including verification that supporting documentation exists where applicable.

INTERNAL AUDIT DATA VALIDATION

The company's IA function validated various metrics provided in the 2022–2023 Sustainability Report and Index. Specifically, IA focused on data related to the areas of Community Relations, Human Resources, Process Safety, Workforce Health & Safety, and Environmental. For these areas, the validation methodology included tracing the numbers provided back to the respective source systems (e.g., the company's environmental tracking system or other applicable system). IA did not reconcile metrics with the underlying source data. For environmental metrics, the validation also included a review of submitted supporting documentation with subsequent reconciliation to the reported metrics.

CDP

2023 CDP Climate Change Response >

2023 CDP Forest Response >

2023 Water Security Response >

ERM CVS ASSURANCE REPORTS

2023 Assurance Statement for CDP Climate Change Response >

2023 Assurance Statement for CDP Water Security Response >

2022 Assurance Statement for 2022–2023 Sustainability Report and Index >

ADDITIONAL REPORTING

2022 Corporate Equality Index >

Celanese

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IMPORTANT INFORMATION ABOUT DISCLOSURES ESG-002-2022_2023SustainabilityIndex-Bro-EN-r1-1023

FORWARD-LOOKING STATEMENTS AND OTHER IMPORTANT INFORMATION

Statements in this Sustainability Index that are not historical facts or information are "forward-looking statements" within the meaning of the United States federal securities laws. These forward-looking statements include information and opinions concerning the company's expectations, plans, forecasts, objectives, goals, strategies, and other estimates regarding future events. These statements can generally be identified by words such as "believe," "expect," "intend," "estimate," "anticipate," "project," "plan," "aim," "strategy," "commit," "target," "goal," "objective," "pledge," "may," "can," "could," "might," "will," and similar expressions. All forward-looking statements are aspirational and are based upon current expectations and beliefs and various assumptions, and are not guarantees of future performance or that targets or goals will be met or will not change. Additionally, as described above, statements related to our sustainability metrics or progress may be based on standards that are still developing, internal controls and processes that continue to evolve, and assumptions are subject to change in the future. There are a number of risks and uncertainties that could cause actual results and events to differ materially from those reflected in the forward-looking statements contained in this report, and all forward-looking statements should be evaluated with consideration of those risks. Any forward-looking statement speaks only as of the date of this report, and the company undertakes no obligation to update any forward-looking statement to reflect events or circumstances occurring or information learned after the date of this report, whether to reflect new information, future events, changes in our expectations, or other occurrence of anticipated or unanticipated events or circumstances. However, any future public statements or disclosures by Celanese that modify or impact any of the forward-looking statements in this report shall modify or supersede such applicable statements in this Sustainability Index. We provide this Sustainability Index for informational purposes only. Topics and information we considered relevant and useful for inclusion in this Sustainability Index, and for influencing our Sustainability Strategy, may not be considered material for Securities and Exchange Commission (SEC) reporting purposes or for purposes of making or influencing an investment or securityholder voting decision.

WEBSITE REFERENCES AND HYPERLINKS

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