

# Battelle 2023

## Environmental, Social and Governance Overview

At Battelle, we anticipate the future to solve our world's greatest challenges. Since our founding in 1929, we've applied science, technology and engineering to develop national security, healthcare, environmental protection and energy market solutions for both government and commercial clients. As a nonprofit applied science and technology organization, we drive positive change through our work and charitable investments in science, technology, engineering and mathematics (STEM) education and nonprofit organizations that strengthen the communities where our employees work and live.

## Our Mission Is Based on ESG Principles

Our founding mission of using science to do the greatest good for humanity is aligned with Environmental, Social and Governance (ESG) principles. Within Battelle, our efforts to reduce our carbon footprint, make our operations more sustainable and create a more inclusive workplace help us to:

- Reaffirm our core mission of using science and technology to make the world safer and healthier.
- Exceed employee expectations regarding our commitment to a workplace that is diverse, inclusive, equitable, and environmentally conscious.
- Keep pace with regulatory pressure to meet sustainability goals.
- Respond to customer requirements to improve our environmental stewardship and cultural diversity.

Taken together, the results of these activities are intended to bring more transparency and trust as we work with our employees, partners, customers and community stakeholders.

*The information presented represents key sustainability initiatives Battelle has implemented and/or completed to date. Performance data included within this report is current as of September 30, 2022, unless otherwise stated. The results of Battelle's materiality assessment, performed through engagement with internal and external stakeholders, have informed the selection of the topics. The Sustainability Accounting Standards Board (SASB) industry standards for Aerospace & Defense and Engineering & Construction Services also were used as a guide when preparing this document.*

# Environment

Climate change, biodiversity loss and resource scarcity are among the world’s most pressing challenges. At Battelle, we are committed to making our operations more sustainable while also working to develop new technologies that improve the environmental resilience and sustainability of the planet.

## Environmental Stewardship

We are improving our operations in the areas of greenhouse gas emissions, water use and waste management.

### Greenhouse Gas Emissions

We currently measure our Scope 1 and Scope 2 greenhouse gas (GHG) emissions annually. Since 2011, we have realized a 38% cumulative reduction in Scope 1 and Scope 2 emissions. Increased efficiencies in Battelle’s operations account for 15% of this reduction, with the remainder due to power grid improvements. We also have laid out a path to reduce GHG emissions by an additional 40% to 50% between fiscal year 2023 and fiscal year 2035 through the future modernization of buildings, systems and industrial controls, along with a significant reduction of the square footage that supports our operations. More than 90% of our planned building and facilities projects will improve energy efficiency and reduce GHG emissions.



## Greenhouse Gas Emissions (con't)

Infrastructure improvements across our owned facilities include:

- Upgrading roofs and windows to support improved energy efficiency.
- Upgrading air handling units and exhaust fans.
- Replacing laboratory chillers with more energy-efficient models that use more environmentally friendly refrigerants.

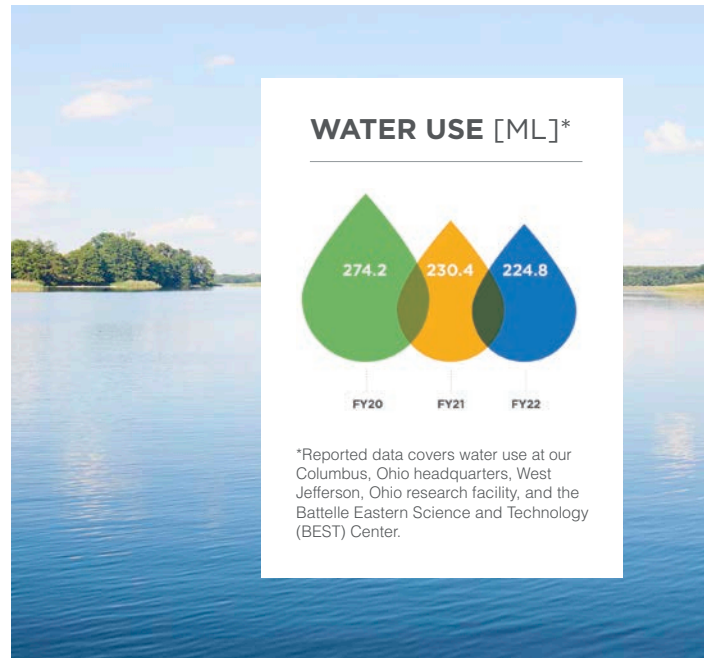
### THE IMPACT OF LED LIGHTING UPGRADES AT BATTELLE'S KING AVENUE LOCATION IN COLUMBUS, OH

Lighting makes up a large part of any operation's energy consumption. We are upgrading all lighting to LEDs to reduce our environmental footprint while also providing a more comfortable workplace.



## Water Usage

We are monitoring our water use with an eye toward improving our management of this vital resource. We saw water use reductions from fiscal year 2020 through fiscal year 2022, due in part to significant reductions in the amount of research space Battelle occupies.



## Waste and Hazardous Materials Management

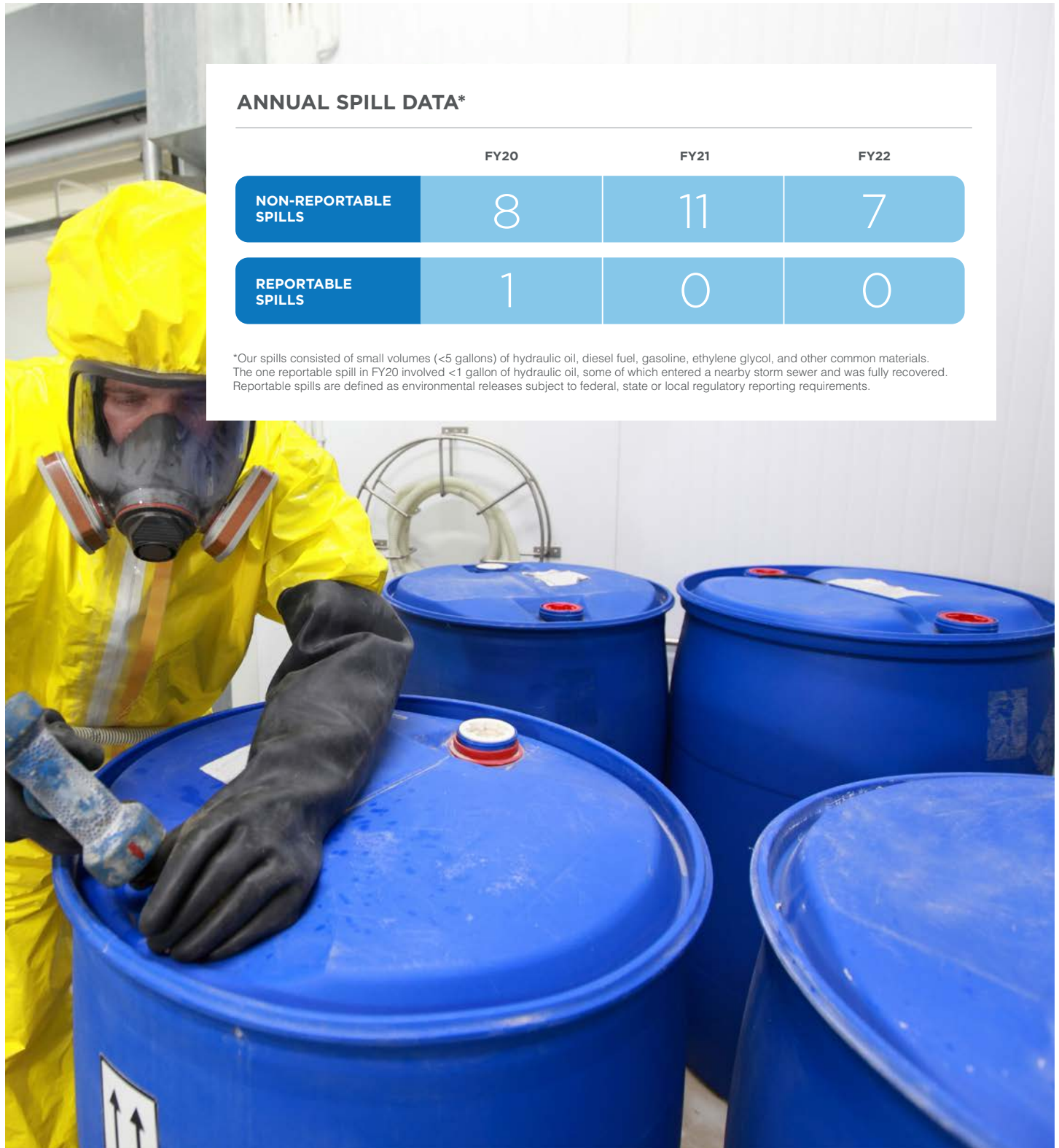
We continue to advance toward our recycling goal of reaching a 75% waste diversion rate by fiscal year 2035 through:

- Increased recycling.
- Reductions in single-use plastic.
- Increased sourcing of recycled content.
- Improved tracking and diversion of construction waste.

Results of our recycling efforts, which appear very strong for fiscal year 2022, were disproportionately impacted by two major construction projects where we were able to recycle large amounts of construction waste material. For that reason, we have included in graph form our actual landfill vs. recycling mix alongside an adjusted view that is more representative of our typical annual recycling rate.



We also have programs in place to monitor for and remedy any potential work that could result in an environmental risk. We contract with specialized waste storage and handling facilities to dispose of hazardous waste generated from our work. We also conduct annual reviews of the U.S. Environmental Protection Agency Compliance Database, as well as periodic audits of our vendors' waste treatment, storage and disposal facilities. In fiscal year 2022, our team managed the safe transportation and responsible disposal of approximately 106,000 pounds of lab-generated infectious waste and approximately 181,960 pounds of hazardous waste.



**ANNUAL SPILL DATA\***

	FY20	FY21	FY22
<b>NON-REPORTABLE SPILLS</b>	8	11	7
<b>REPORTABLE SPILLS</b>	1	0	0

\*Our spills consisted of small volumes (<5 gallons) of hydraulic oil, diesel fuel, gasoline, ethylene glycol, and other common materials. The one reportable spill in FY20 involved <1 gallon of hydraulic oil, some of which entered a nearby storm sewer and was fully recovered. Reportable spills are defined as environmental releases subject to federal, state or local regulatory reporting requirements.

## Technology Investments for the Environment

Our mission to use science to solve challenges for the betterment of humanity means we are squarely focused on the long-term risks facing society. Today, many of these risks are environmental. Our broad portfolio of solutions includes technologies that help reduce carbon emissions and processes to investigate and remediate environmental contamination.

### Enabling Climate Research: NEON

We operate the [National Ecological Observatory Network \(NEON\)](#) for the [National Science Foundation](#). NEON is a continental-scale research platform for discovering and understanding the impacts of climate change, land-use change and invasive species on ecology. NEON gathers long-term data on ecological responses of the biosphere to changes in land use and climate at 81 field sites across the United States, including Alaska, Hawaii and Puerto Rico. The data is available at no charge to ecologists and other scientists to help researchers better understand environmental changes, advise on natural resource and land management decisions, and generate up-to-date climate models and forecasts.

Ultimately, the information collected and distributed through NEON helps policymakers understand how the world is changing so they can make decisions that better protect the environment and humankind. Our new partnership with Google Public Sector will provide researchers easier access to artificial intelligence and machine learning tools, enabling them to produce even more insights from NEON's massive datasets.



In March 2023, we will hold our second annual three-day Innovations in Climate Resilience conference. This year's theme is **"Bold Leaps and Action."**



## Climate Resilience: Carbon Capture and Sequestration

Preventing carbon dioxide from reaching the atmosphere is a critical part of tackling global challenges related to climate change. Due to the time and complexity involved in making the shift to renewable and low-carbon energy sources, carbon capture and sequestration (CCS) is especially important for achieving the Paris Agreement's target of limiting global warming to 1.5 degrees Celsius compared to preindustrial levels.

Through our expertise in geology, we have been involved in helping to create CCS solutions for more than 25 years. In that time, we have supported more than 100 projects around the world. Deep knowledge and expertise are critical for navigating regulations and implementing solutions quickly, safely and effectively.



For 20 years, Battelle led the Midwest Regional Carbon Sequestration Partnership, which safely captured more than 2 million metric tons of carbon dioxide.

## Investigation and Remediation: Eliminating PFAS

Per- and polyfluoroalkyl substances (PFAS) have been widely used in a variety of applications and products. These so-called “forever chemicals” are present in water, air, soil and throughout the food chain. Our early focus on PFAS when it was still considered an “emerging contaminant” led us to develop a full suite of technologies and services to help detect and destroy these chemicals. PFAS ANNIHILATOR™ is the only solution currently available that destroys PFAS without creating harmful byproducts. This solution, developed in Battelle's laboratories, is a foundational technology now being deployed by a new company, launched by Battelle, called [Revive Environmental](#).

### BATTELLE-INVENTED PFAS TECHNOLOGIES

**PFAS ANNIHILATOR™** destroys and prevents this dangerous family of chemicals from being transferred elsewhere without producing additional harmful byproducts.

**PFAS AIR INSIGHT™** measures the level of PFAS in ambient air to monitor potential human and environmental health risks.

**PFAS INSIGHT™** passive sampling technology detects PFAS in groundwater without producing the hazardous waste byproducts related to traditional sampling methods.





# Social

Finding solutions to the world’s toughest challenges requires collaboration and cooperation among the best minds from all walks of life. We are committed to attracting employees from a diverse range of backgrounds and supporting their career development. We are equally committed to ensuring the health and safety of our workforce, as well as the strength of our communities.

## Human Capital Management

Our ability to attract and retain the best talent in the world directly affects the success of our innovative technologies and solutions. Put simply, when our employees thrive, Battelle thrives, resulting in faster progress toward a better world for everyone.

### An Employee Value Proposition Focused on a Diverse Workforce

For brilliant minds in science, engineering, technology and business operations, Battelle is the place to grow a career and advance individual skills while making a positive impact on the world. We provide employees with the opportunity to pursue their passions and apply their talents to meaningful projects while collaborating with and learning from world-class experts.

Our commitment to diversity, equity and inclusion (DEI) offers an experience that supports and inspires success across our workforce. We constantly implement and refine inclusive practices and behaviors to attract top talent. This allows our organization to more closely reflect the communities in which we live and work. We also help employees be at their best by providing opportunities for personal and professional growth, career advancement, competitive benefits and compensation.

### Functional Affirmative Action Plans

As a federal contractor, Battelle is required to develop affirmative action plans that outline steps to recruit and advance minorities, women, the differently abled and protected veterans. Many federal contractors create affirmative action plans based on the demographics of their local communities. Because we have many locations, we instead focus our efforts on functional areas that span the entire company. We use these plans to take additional steps to ensure applicants, employees and contract workers are provided equal opportunities.

In 2022, we received a top score of 100 on the Human Rights Campaign Foundation’s Corporate Equality Index, the nation’s foremost benchmarking survey measuring corporate policies and practices related to LGBTQIA+ workplace equality.



### *Nurturing and Enabling Talent*

Our commitment to an inclusive culture and support for employee resource groups (ERGs) help ensure the increasingly diverse talent we recruit has the resources needed to grow and thrive. These efforts include:

- Professional development opportunities for employees at all levels.
- Leadership-focused training programs targeted at mitigating unconscious bias.
- Executive sponsorship of employee-led ERGs that provide opportunities to develop leadership skills and receive meaningful organizational support.

### *We Build on These Efforts Through the Following Employee Groups:*

**African American & Black Leadership Excellence** – Engages in the recruitment of Black/African Americans, serves as a forum for Black/African Americans to find their voice and be heard within Battelle and helps build an inclusive Battelle culture.

**Embrace** – Promotes and advocates for an inclusive workplace for employees of multicultural backgrounds, including underrepresented ethnicities and races.

**Military Support** – Engages military service professionals by bringing together our military veterans, employees in the National Guard or Reserve, and military families and friends.

**Women's Network** – Values diversity and inclusion by providing professional development, networking and mentorship to empower women to perform to their highest potential.

**NextGen** – Advocates for early career and passionate business professionals within Battelle and provides a strategic resource for improving Battelle's ability to attract, develop, retain and engage a diverse workforce.

**Prism** – Advocates for Battelle's lesbian, gay, bisexual, transgender, queer, intersex and allied (LGBTQIA+) employees so all people feel safe, supported and welcome regardless of their sexual orientation, gender identity or expression.

**Emerging Scientists and Engineers Council** – Connects emerging scientists and engineers to the opportunities they need to succeed and to make Battelle the place where they want to invest their time and passion.



### *Historically Black Colleges and Universities Consortium*

Our effort to build meaningful, long-term collaborative relationships with the country's leading historically black colleges and universities (HBCUs) began in 2021 with a two-year, \$200,000 investment to provide students from Bowie State University and Morgan State University research opportunities as they progress from classroom to employment. These externship opportunities will evolve to include joint seminars, mentorship opportunities and participation on thesis committees, as well as research collaborations with, and employment at, Battelle.

## Diversity, Equity and Inclusion

We call our employees “Solvers” and they are the key to our success. To solve complex challenges as effectively as possible, we need the broadest range of insights and experiences.

*The more **diverse** our team is, the better equipped we are to solve the world’s problems.* To build that diverse team, we are expanding efforts to reach top scientists and engineers with an emphasis on diversity of skills and backgrounds.

*The more **equitable** our policies, practices, systems and structures are, the greater access we will have to diverse talent communities.* We are working to create a workplace in which all our Solvers feel empowered to bring their thoughts and ideas to the table. We strive to level the playing field by providing everyone with equal access to opportunity.

*A culture of **inclusion** allows employees to tackle and solve the world’s most complex problems.* When our Solvers, clients and stakeholders feel included as their authentic selves, we create a work environment that attracts talented people, nurtures their careers, helps them succeed and keeps them engaged.



### IMPROVING SUPPLIER DIVERSITY

We are enhancing our existing Supplier Diversity Program beyond federal requirements to benefit LGBTQIA+ and minority-owned business enterprises (MBEs).

We have added LGBTQIA+ and MBE designations to our [supplier registration website](#).

## Representation Metrics

Our commitment to diversity starts at the top of our organization with our Board of Director elections and Senior Leadership Team recruitment and succession planning. We continue to advance our DEI strategy and reporting and intend to share additional details and workforce representation metrics in our forthcoming inaugural ESG report.

### BOARD OF DIRECTORS



**MALE**

67%

**FEMALE**

33%

**RACE/  
ETHNICITY**

**WHITE**

78%

**PEOPLE OF COLOR**

22%

### SENIOR LEADERSHIP TEAM



**MALE**

73%

**FEMALE**

27%

**RACE/  
ETHNICITY**

**WHITE**

91%

**PEOPLE OF COLOR**

9%

## Health and Safety

It is impossible to be at your best if you are worried about your well-being. The health of our employees and stakeholders is paramount. Keeping our people, our communities and our planet healthy and safe is foundational to our mission.

### Employee Health, Safety and Well-Being

We are fully committed to supporting the safety and well-being of our employees.

- After a temporary rise in injury and illness rates driven by the COVID-19 pandemic and the resumption of ecological field research in fiscal years 2020 and 2021, injury and illness rates for fiscal year 2022 have reverted to industry standard levels.
- We support the physical and mental health of our employees through a generous benefits package that includes wellness incentives and paid time off for improving work-life balance.

### Chemical and Biological Safety

Our work often requires that we handle and dispose of hazardous materials. That's why we focus on chemical and biological safety to help protect both our workforce and the communities in which we operate.

- Use of hazardous chemicals and biological materials requires formal planning, regulated operating processes and stringent waste management procedures.
- All employees working with chemical and biological materials must complete mandatory training.
- Safety, health and emergency response representatives are readily available to answer technical questions about lab safety.
- Personal protective equipment is provided and required during operations involving the use of hazardous research materials.



#### INCIDENT RATE

	FY20*	FY21*	FY22*
<b>TOTAL RECORDABLE INCIDENT RATE (TRIR)</b>	1.68	2.07	0.77
<b>FATALITY RATE</b>	0.00	0.00	0.00

Note: All rates inclusive of contractors working under direct Battelle supervision. TRIR calculated by the (Number of OSHA recordable incidents) X 200,000 / (Total number of hours worked)

\*Higher than usual TRIR in FY20 and FY21 due to COVID-related illness and increased laboratory volume due to the pandemic



## STEM Education and Philanthropy

STEM education is a natural area of focus for an organization steeped in science and engineering knowledge. These external engagements also benefit us as they help our Solvers connect with our communities and contribute to the development of the top scientists of tomorrow.

A broader focus on philanthropy is also an important part of our mission to make the world a better place. To that end, we invest in our communities and support our employees' efforts to improve the lives of those around them.

### Investing in the Next Generation of Critical Thinkers

Battelle's education efforts expand STEM learning opportunities for students and help Battelle to serve as a trusted partner. We launched Battelle Education, a mission-oriented nonprofit organization, to amplify STEM education best practices across the country.

- Since 2006, we have engaged in partnerships and launched networks to amplify effective educational practices and build a professional community for STEM educators across the nation.
- Battelle's STEM philanthropy, education efforts and Battelle-managed national laboratories together reached nearly 1.5 million students in 2022 alone.

### Philanthropy

We have a long history of philanthropic giving and a long-standing commitment to giving back to our communities. While most of our philanthropy is directed at advancing STEM education, we also invest in essential social services and other programming to improve communities where our employees live and work.

Our Team Battelle program helps employees start and support volunteer-driven programs and activities in their communities, including:

- Fundraising for cancer research.
- Organizing work projects to clean up local parks.
- Collecting backpacks and filling them with school supplies for children living in low-income households.
- Supporting local food banks and libraries.



### PHILANTHROPIC IMPACT

In fiscal year 2022, Battelle employees donated more than \$1 million to more than 1,000 nonprofit organizations throughout the United States.

We match employee gifts dollar for dollar, doubling the impact of our employee giving.

# Governance

We manage our operations with the highest degree of integrity. Our governance functions provide a consistent framework that holds us to the highest ethical standards and helps us manage enterprise risks such as cybersecurity. Governance also is an important way to formalize our ESG efforts.

## Corporate Governance

Our Board of Directors brings experience from a wide range of sectors, including government, business, military, science and education, and serves as a repository of expert advice for the CEO and the Senior Leadership Team.

Our Senior Leadership Team is responsible for the operations of the organization and subscribes to published policies and procedures and a formal set of “authorities to operate,” which are formally documented and approved by the President and CEO. This document serves as a guide to employees regarding who holds ultimate responsibility for various decisions and actions.

## ESG Oversight

Battelle is committed to advancing its ESG strategy through sound policies, leadership and oversight. To demonstrate this commitment, in 2022, we formalized and launched an ESG Advisory Board that reports to a member of the Senior Leadership Team. We also created two additional feedback groups made up of employees interested in ESG efforts and a knowledge group composed of scientists and engineers with deep technical expertise in relevant ESG areas. These groups of Battelle leaders and subject matter experts help inform our current and projected ESG policies and procedures.

## Enterprise Risk Management

We gather risk information from our employees via an annual survey and facilitated meetings to ensure we recognize and address the most relevant risks to the business.

- In fiscal year 2021, we hired our first-ever chief risk officer.
- In fiscal year 2022, our Chief Audit Executive oversaw 11 internal audits covering nine areas of risk.

## Business Ethics and Compliance

We maintain a formal Code of Conduct, as well as other documented processes, policies and procedures designed to hold our organization to the highest ethical standards. These include:

- Annual mandatory training related to ethics, conflicts of interest and compliance.
- An ethics hotline through which employees can anonymously report unethical conduct.
- A no-retribution policy to protect employees who report suspected ethical violations.
- A zero-tolerance policy regarding human trafficking.
- Support of scientific integrity through anti-plagiarism tools and a zero-tolerance policy for scientific misconduct.
- Assuring the rights, welfare, health, safety and privacy of persons who volunteer to serve as human subjects in research.
- A policy that requires us to seek an alternate supplier if a Battelle supplier discloses that its products contain a conflict mineral.
- Ethical contractor and source selection standards.
- Strong protections against conflicts of interest, including clear rules regarding gifts and gratuities.

## Cybersecurity

We maintain comprehensive cybersecurity policies and procedures to protect the sensitive information of our employees, customers and other stakeholders.

- The Chief Information Security Officer is responsible for developing and maintaining our Information Technology and Information Security Policy.
- Employees, contractors and visitors all must follow the safeguards and security measures specified by the Corporate Information Technology, Security Operations and Government Security groups.
- Employees participate in mandatory annual cybersecurity training.

# Our Forward-Looking Approach to ESG

We view ESG as a long-term priority and are committed to building an ongoing management strategy that aligns with current and future stakeholder expectations and business imperatives. This work includes conducting a materiality analysis to identify and prioritize the ESG issues with the greatest impact on our business, formalizing and establishing internal committees and working groups, and completing an ESG goal assessment intended to help set measurable targets to improve our performance. We are also developing an inaugural ESG report aligned to globally recognized ESG disclosures and frameworks, to be published in 2024.

We welcome feedback on our efforts to date.  
Please contact us at [solutions@battelle.org](mailto:solutions@battelle.org) with any questions.