



Focusing for the Future

Trane Technologies 2019 ESG Report

TRANE TECHNOLOGOES
2019 ESG REPORT

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Focusing for the Future

At Trane Technologies, we look ahead, pushing what's possible for our customers, our business and the world. We innovate to create opportunities, overcome climate challenges and as the past decade has shown—boldly make the connection between sustainability and business results.

This report shares the results of our Climate and Industrial segments known in 2019 as “Ingersoll-Rand plc.” On February 29, 2020, Ingersoll Rand and Gardner Denver completed a transaction whereby Ingersoll Rand separated its Industrial segment and combined with Gardner Denver, creating a global industrial leader in mission critical flow creation and industrial technologies, which was renamed Ingersoll Rand Inc. The remaining HVAC and transport refrigeration businesses of our company were renamed Trane Technologies plc.

As a pure-play global climate innovation company, Trane Technologies is uniquely positioned to focus on the future, solving big sustainability challenges while bringing heating, cooling and refrigerated foods and perishables to people around the world.

While we take on a new company brand, our foundation remains unchanged. Sustainability continues to fuel our passion for exceeding customer expectations. Our unique combination of principled leadership, ethical business practices and a high-engagement culture are forging a sustainable world for all of our stakeholders.

Yes, we’re focusing for the future.

Trane Technologies completed a Reverse Morris Trust Transaction on February 29, 2020. The Industrial segment of the former Ingersoll-Rand plc separated and combined with Gardner Denver and was renamed Ingersoll Rand Inc. The Climate business now operates as Trane Technologies plc and began trading on the New York Stock Exchange under the new ticker symbol “TT.”


Trane Technologies plc (NYSE: TT)


Global climate innovator

Efficient and sustainable climate solutions for buildings, homes and transportation

Chairman and CEO
Michael W. Lamach

Franchise brands and businesses with market-leading positions





Ingersoll Rand Inc. (NYSE: IR)


Global leader in mission-critical flow creation and industrial technologies


Combined 300+ year history of operational excellence, innovation and quality


Chairman
Peter Stavros


CEO
Vicente Reynal


Industry-leading portfolio of iconic brands




















Our Purpose: to boldly challenge what’s possible for a sustainable world.

Strategy for Creating Long-Term Value

GROWTH EXCELLENCE

We use customer insights and analytics to make strategic choices about the businesses and markets where we invest, and on the development of innovative, energy-efficient and reliable products and services for our customers.

OPERATIONAL EXCELLENCE

We pursue continuous process improvement that drives growth, creates value, fosters employee engagement, and enhances reliability, quality and the customer experience.

WINNING CULTURE

We engage our people and develop a workforce with diverse backgrounds and skills to foster an environment of innovation and integrity that leads to better solutions for our customers and for society.

Dear Shareholder,



As I write this letter, the world is managing the widespread effects of COVID-19. The situation continues to evolve at a rapid pace, and we are working hard to safeguard the health of our people, while meeting the critical needs of hospitals, data centers, grocery stores, military bases, food and pharmaceutical distribution and other essential customer operations that are under great strain.

Each day, our team challenges what's possible—innovating in support of a sustainable world. Our strategy is at the intersection of sustainability megatrends and our advanced HVAC and transport technologies. Today, 15% of the world's carbon emissions come from heating and cooling buildings, and nearly another 10% comes from global food loss—and these numbers are growing. We are directly addressing emissions at the source, by developing new and better ways to heat and cool homes and buildings, and to transport food and medicine. These solutions are enabling precise temperature control in critical environments and ensuring that vital products are transported safely.

2030 SUSTAINABILITY COMMITMENTS

Our bold 2030 Sustainability Commitments are central to our business strategy, create a positive impact in society and enable premier financial performance.

The Gigaton Challenge: Reducing customers' carbon emissions by one gigaton by the year 2030.

Leading by Example: Committing to carbon-neutral operations and zero waste to landfills by 2030, and pledging to give back more water than used in water-stressed areas.

Opportunity for All: Creating opportunity for all in our workplace, with goals to achieve gender parity in leadership and workforce diversity that reflects the communities we serve; and opportunity in our communities, through investments in education and workforce development, housing and cooling comfort, healthy food and wellness.

Premier Performance

In 2019, our sustainability-focused strategy led to innovative solutions for customers, above-market results for shareholders and better environmental outcomes for the world. Our proven business operating system enabled us to navigate global uncertainties, deliver strong earnings per share growth and generate powerful cash flow.

We exceeded the financial goals we set at the beginning of 2019 through strong execution of our business model in sustainability-focused, growing end markets. Adjusted continuing earnings per share* grew 14%, organic revenue* grew 6% to a record \$16.6 billion, and adjusted operating income margins* expanded by 70 basis points, delivering exceptional free cash flow* of \$1.8 billion, or 118% of adjusted net earnings*. We executed our dynamic capital allocation strategy, including maintaining a high level of business reinvestment, deploying \$1.5 billion to value-accretive M&A, and funding \$510 million in dividends and \$750 million in share repurchases as the shares continued to trade below our calculated intrinsic value.

We achieved our 2020 Climate Commitment ahead of schedule, reducing carbon emissions from our products by more than 50%, and emissions from our own operations by more than 35%.

Strategic Innovation

Since announcing our 2020 Sustainability Commitments in 2014, we have invested more than \$500 million in research and development focused on innovative climate change solutions. In 2019, we introduced nearly 90 new products and enhanced our portfolio through strategic acquisitions.

Our EcoWise™ portfolio expanded with new high-efficiency chillers, designed to reduce building emissions with low global warming potential refrigerants. Through our acquisition of Arctic Chiller, we added new air- and water-cooled chillers that reduce energy and operational costs. Our new connected building services enhance energy efficiency and performance through a building's life cycle.

Our transport refrigeration portfolio offers a broad range of zero- and low-emission solutions including a new all-electric unit equipped with ThermoLite solar panels. Paired with our telematics, we provide transport customers with real-time visibility to temperature-sensitive cargo and equipment while on the road.

Winning Culture

Our experienced leadership team, talented people and high-performance culture enable us to push the boundaries of what's possible. In 2019, we maintained world-class employee engagement in the midst of a rapidly changing environment.

We also continued to enhance our focus on diversity and inclusion. Our Black Employee Network, now in its seventh year, was central to the launch of the Black Leader Forum. As the first company in our industry to join Paradigm for Parity®, we are proud that through seven years of our signature Women's Leadership Program, we have retained 83% of its graduates and promoted nearly one-third.

Focusing for the Future

Now, we're focusing for the future. With the separation of our Industrial segment, our portfolio is fully focused on climate innovation. As a world leader in climate solutions, we are creating a more focused organizational model, more focused investments and aligning around one central purpose: to boldly challenge what's possible for a sustainable world.

Our new 2030 Sustainability Commitments include a pledge to reduce our customers' carbon emissions by one gigaton (2% of the world's annual emissions) and to bring our own operations to carbon neutral. These commitments extend to our communities, where we are investing in education and workforce development, housing and comfort, and food and wellness. Our actions are predicated on a strong belief that one company can change an industry, and one industry can change the world.

With our focused strategy, we will rise to meet the immediate challenges ahead and create long-term value for our people, customers, shareholders and communities.

Thank you for joining us in our quest for a better future. Please stay safe.

Michael W. Lamach Chairman and CEO

2019 Financial Performance

14%

Adjusted Continuing EPS Growth*

6%

Organic Revenue Growth*

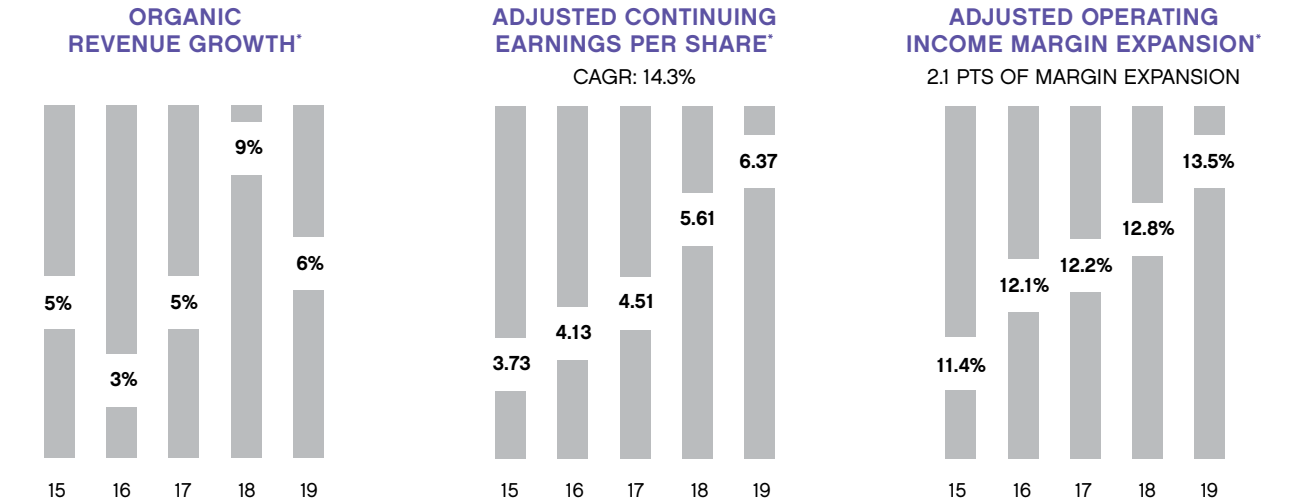
70 bps

Adjusted Operating Income Margin Expansion*

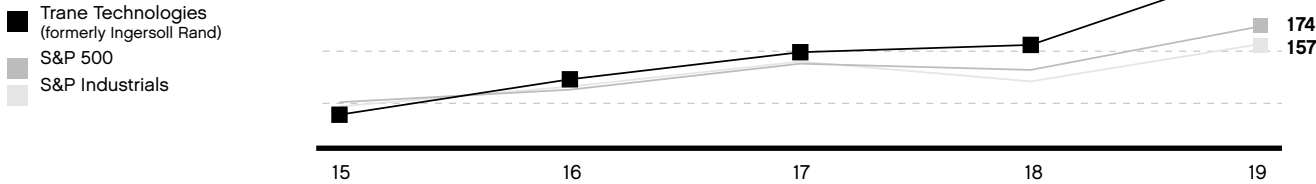
107%

5-Year Average Free Cash Flow Conversion*

DYNAMIC CAPITAL DEPLOYMENT



SHAREHOLDER RETURNS



Environmental, Social and Governance

These highlights reflect the environmental, social and governance (ESG) practices that have helped us successfully embed sustainability throughout our business. Sustainability is foundational to our strategy, the products and services we develop and the way we operate as a company. We are exceptionally proud of the global recognition of our ESG performance over the past decade and the long-term value we are creating for our stakeholders.

ENVIRONMENTAL

50% reduction in emissions intensity associated with our operations since the 2013 baseline

Invested more than \$500 million in product-related research to fund the long-term reduction of greenhouse gas emissions over the past six years

Avoided more than 20 million metric tons of CO₂e from our products since the 2013 baseline

27% total energy efficiency increase since 2013 baseline

SOCIAL

WOMEN IN THE WORKFORCE

24.3% of employees globally

23.1% of leadership positions

\$311 million global spend with women-owned businesses, a 23% increase over prior year

31,682 hours volunteered by our employees, equivalent to \$805,673

96.1% of top, diverse talent and leadership retained

97% of employees have development plans in place

GOVERNANCE

Board Diversity: 4 of 12 directors or 33% are women

Board-level oversight of sustainability with reviews quarterly

SUSTAINABILITY GOVERNANCE

Our Center for Energy Efficiency and Sustainability (CEES) provides guidance and best practices for the integration of sustainability into our business.

Our Sustainability Strategy Council includes company executives who define and lead our sustainability efforts.

Our external Advisory Council on Sustainability offers expertise on sustainability, infrastructure development, energy policy and technology to help us understand critical issues and apply that learning to our strategy.

FOR THE SECOND YEAR WE HAVE REPORTED TO THE SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB) AND TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TFCD) REPORTING FRAMEWORKS.

We are using the SASB standards for the Electrical & Electronic Equipment and Industrial Machinery & Goods industries. We support the TFCD's recommendations to improve disclosure of climate-related risks and opportunities. [Read about](#) our climate governance, strategy, risk management, metrics and targets in our 2019 ESG Report.

HIGHLY REGARDED ESG PERFORMANCE



Strategy in Action



CUSTOMER-DRIVEN SOLUTIONS

~40bps
of revenue per year in incremental customer-driven investments (for the past 5 years)



OPERATIONS AND SUPPLY CHAIN

31%
reduction in non-hazardous waste to landfill since 2013, achieving our 2020 target of 30%



PEOPLE AND CITIZENSHIP

\$8.4M
in philanthropic giving

Developing Innovative, Customer-Driven Solutions

As the world becomes warmer and more urbanized, the need to combat climate change is ever more critical. Today 15% of the world's carbon emissions come from heating and cooling buildings and nearly another 10% comes from global food loss. We are continually innovating with products, services and the use of data and analytics to bend the curve on global warming. By 2030, we will reduce our customers' carbon emissions by one gigaton by changing the way the world heats and cools buildings and moves refrigerated food, medicines and other perishables. A gigaton is equivalent to 2% of world's annual emissions.

ICONIC COOL

SL Green Realty partnered with Trane Technologies to keep an iconic building at 11 Madison Avenue, a 30-story office tower in the heart of New York City, cool in the summer, while saving energy and reducing greenhouse gas emissions. The secret? Ice.

We were engaged to install energy-efficient centrifugal chillers and thermal energy storage. During peak cooling season, the thermal batteries produce thousands of pounds of ice overnight, while energy costs are low. The ice cools the building during the day, decreasing the carbon footprint, energy consumption and operating costs.

As a result, SL Green has lowered tenant energy costs by 10%, reduced energy and operating costs by more than \$730,000 annually and decreased carbon emissions by 1.4 million pounds.



2019
Energy Manager
Top Product for Trane
Intelligent Services

World Environment
Center Annual
Gold Medal for
International Corporate
Achievement in
Sustainable Development

THE FOREFRONT OF GREENER AND CLEANER TRANSPORTATION

Imagine a new era, where refrigerated goods can be moved with no noise and no emissions. That new era is today.

Our Thermo King E-200 unit is designed for electric and engine-powered trucks and vans to provide capacity and performance independent of the vehicle's operation. The unit includes a controller that allows the refrigeration unit to adapt the capacity based on the actual need and available power. When fitted with a Thermo King battery, the controller manages different power sources simultaneously to maintain capacity during deliveries or breaks. With TrackKing™ telematics, the system can be monitored and analyzed through a computer or mobile device—without taking the vehicle off of the road.

Ensuring Sustainable Operations and Supply Chain Management

How we do things is just as important as what we do. Leading with “how” enables us to achieve our sustainability goals and maximize the benefits. We begin by focusing on systems-level thinking. Next, we work toward solutions that are beyond quarterly priorities. And always, we collaborate with others within our ecosystem to further sustainability objectives.

ACHIEVING CARBON NEUTRALITY IN GALWAY

We design our manufacturing facilities with sustainability as a prerequisite. Less energy consumption is our goal because when we reduce energy, we reduce carbon.

Demonstrating our philosophy that sustainability starts at home, the Thermo King team in Galway, Ireland, developed a plan for carbon-neutral production to manufacture our new A-Series refrigerated trailer product. Using “Design for Manufacture” best practices, our team reduced the energy use from the assembly process by 54%. We also developed a renewable energy plan that included solar power to fuel all electrical needs, renewable fuel such as biodiesel for verification testing, and carbon offsets that together will enable the project to get to carbon neutrality within 12 months of launch.

50%

reduction in emissions intensity from refrigerants in our operations since 2013*

39%

reduction in water use at sites located in water-stressed areas since 2013



*Normalized to revenue

CREATING “AN ENERGY REVOLUTION” IN MONTERREY, MEXICO

We had a bold objective: increase energy efficiency and reduce the greenhouse gas footprint of our Monterrey manufacturing facilities.

We formed an internal energy committee, leveraged a systematic approach and delivered what the team calls “An Energy Revolution.” In addition to an internal audit and search for energy reduction opportunities, our team participated in 60 hours of quality standards training and implemented energy-savings measures.

As a result, we reduced our operational greenhouse gas footprint by 35% and saved \$400k in annual energy costs. Our highly engaged team submitted more than 500 suggestions to reduce energy, and contributed to the site achieving ISO 50001:2011 and Superior Energy Performance Certifications.

Empowering the Possible Through People and Citizenship

Purpose drives performance. We have established a high-engagement culture in which our associates understand and value the connections that link sustainability with customer needs and our financial results. We practice corporate citizenship through volunteerism; sharing our collective commitment to being progressive, diverse and inclusive; and living our values of integrity, respect, teamwork, innovation and courage.

ADVANCING DIVERSITY AND INCLUSION

Fostering a progressive, diverse and inclusive workplace is foundational to our mission and purpose.

Our signature Women’s Leadership Program is an experiential leadership development program launched seven years ago to provide our women leaders with the necessary skills to advance their careers. Participants work on solving business problems and are connected with mentors for shared benefit. Nearly 200 women have graduated from the program since its inception and 83% of participants have been retained.

Additionally, our Women on the Rise program is focused on empowering, connecting and supporting emerging leaders. Our Women’s Employee Network is now global, with local chapters in Asia, Europe, Latin America and the United States, and a virtual chapter for remote employees.



83%

of Women’s Leadership Program participants remain with the company

36%

of our people globally participated in community or sustainability initiatives

SUSTAINABLE IMPRESSIONS FOR THE FUTURE

For millions of people, access to electricity remains only a dream. We’re working to change that by partnering with the non-profit Solar Buddy which makes specially designed solar lights for children to use as they study and walk to and from school. Solar Buddy lighting also means families do not need to rely on fossil fuel or other potentially dangerous sources such as kerosene or candles.

More than 1,000 of our people assembled thousands of solar lights for students in Tanzania, Dominican Republic, India and Africa. Our team was thrilled to introduce these students to an “alternative energy source” which for them, will soon be considered natural and ordinary.

INTRODUCTION

The information below, as well as the policies and related content elsewhere in this report, is intended to help you understand the performance and impact of the entity known as Ingersoll-Rand plc in 2019 now renamed Trane Technologies plc in March 2020 through the environmental, social, human rights and business practices we work to uphold.

The European Union (Disclosure of Non-Financial and Diversity Information by certain large undertakings and groups) Regulations 2017 (S.I. 360/2017) (as amended) (the “2017 Regulations”) require us to disclose certain non-financial information in the Directors’ Report (the “Irish Directors’ Report”) accompanying our Irish statutory financial statements. For the purposes of the 2017 Regulations, the sections entitled Description of Business Model, Environmental Matters, Employee Matters, Social Matters, Human Rights, and Anti-Corruption and Anti-Bribery set out below are incorporated by reference into the Irish Directors’ Report.

Our integrated 2019 Annual Report and 2019 ESG Report provide additional information that may be relevant to investors in assessing sustainability commitments and achievements but, except as expressly provided above, the integrated 2019 Annual Report and 2019 ESG Report are not incorporated by reference into the Irish Directors’ Report. Copies of this 2019 Annual Report and our 2019 ESG Report can be accessed at www.TraneTechnologies.com.

DESCRIPTION OF BUSINESS MODEL

We are a world leader in creating comfortable, sustainable and efficient environments. In 2019, our two business segments, Climate and Industrial, featured strong brands and highly differentiated products within their respective markets. In 2019, we generated revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of industrial and commercial products that include well-recognized, premium brand names such as Ingersoll Rand, Trane, Thermo King, American Standard®, ARO® and Club Car.

To achieve our mission, we continue to focus on growth by increasing our recurring revenue stream from parts, service, controls, used equipment and rentals; and to continuously improve the efficiencies and capabilities of the products and services of our businesses. We also continue to focus on operational excellence strategies as a central theme to improving our earnings and cash flow.

ENVIRONMENTAL MATTERS

Approach Our commitment to sustainability extends to the environmental impacts of our people, operations, and products and services. From the efficiency of our buildings to our progress in managing energy, water and waste, we continue to find ways to reduce our impact on the environment and embed sustainability throughout our businesses. We proactively engage with key external and internal stakeholders to identify the most material sustainability-related matters and metrics for operations strategy as well as public disclosure. We also think about the stakeholder groups most impacted by these material topics through the lens of a value chain assessment that we perform. These commitments are embedded in an Environment, Health and Safety (“EHS”) Policy which defines our stakeholders, our roles and responsibilities and our goals and targets with respect to EHS matters and our Business Partner Code of Conduct which requires our business partners to adhere to our standards.

Due diligence processes We have a vital role to play in mitigating global climate change by reducing the environmental impact of our operations, products and services. This responsibility begins by setting specific and measurable climate commitments and working to achieve these goals. In addition, we work to systematically ensure that our suppliers share our values and adhere to our standards of business ethics, health and safety, environmental and social responsibility as specified in our Business Partner Code of Conduct. Suppliers must have an effective environmental policy and conduct their operations in a way that protects the environment. They must also obtain and keep current all required environmental permits and meet all applicable environmental rules, regulations and laws in the countries where they do business.

Policy outcomes / Key Performance Indicators Our global Climate Commitment is the foundation of our efforts to increase energy efficiency and reduce the greenhouse gas emissions related to our operations and products. In 2010, we launched the Center for Energy Efficiency and Sustainability (CEES) to help our customers and our company leverage best practices in sustainability. Within the company, the CEES is a strategic business catalyst that helps us understand the benefits that sustainability can have in growing our company and reducing our own operational footprint, while helping increase the pace of sustainable innovation.

Our energy consumption from fuels and electricity totaled 3,720 billion kilojoules in 2019. Greenhouse gases emitted indirectly through the use of electricity, and directly, through the burning of fuels or emissions of refrigerants, totaled 541,935 metric tons of CO₂e.

- Absolute energy consumption in 2019 – 3,526,339,872,235 Btu (equivalent to 1,033,468 MWh; 3,720 billion kilojoules)
- Absolute Scope 1 and 2 emissions in 2019 – 541,935 metric tons CO₂e in 2019

EMPLOYEE MATTERS

Approach As a global organization that employs approximately 50,000 people, we are committed to building a progressive, diverse and inclusive environment in which people of all backgrounds are treated with equality and respect. We also aim to provide a safe, secure workplace that supports employee well-being and productivity. Investing in our associates and creating a culture where they feel engaged and included is key to unleashing the power of their innovation and creativity, and to delivering the enduring results that create a sustainable world. We formalize these aspirations in our Environment, Health and Safety Policy which addresses employee health and safety among other matters.

We provide annual anti-harassment training to all salaried employees worldwide and we set policies in key employee areas, including our Global Human Rights Policy, our U.S. Equal Employment Opportunity Policy, and our Policy Prohibiting Harassment or Discrimination, which are made available to our employees worldwide.

Due diligence processes To reinforce our commitment to cultivate a diverse and inclusive workplace, we were the first company in our industry to enter the Paradigm for Parity Coalition, a pledge to bring gender parity to our corporate leadership structure by 2030. We also provide anti-harassment training to all salaried employees and make clear policies available to employees worldwide. In addition, creating and sustaining a safety-focused, zero-incident culture is a priority for us. We communicate our

safety expectations through quarterly CEO town hall meetings as well as monthly environmental, health and safety meetings at both the facility and service-organization levels.

Policy outcomes / Key Performance Indicators Consistently high annual employee engagement scores demonstrate that we are creating an environment where our people are learning, thriving and expanding their capabilities. We offer a range of learning experiences for managers and employees to expand our culture of inclusion. For example, our Women’s Leadership Program helps accelerate career advancement for high-potential women. Our Bridging Connections sessions create an opportunity for employees to speak openly about topics such as race, gender, ethnicity and sexual orientation, and address issues related to unconscious bias. In addition, our growing number of employee resource groups serve as a foundation to discuss these topics at a deeper level and to engage in the learning and training critical to building a stronger company.

- 24.3% of total workforce are women
- 23.1% of leadership positions are held by women
- 93% participation rate in annual employee engagement survey
- World-class employee engagement score

SOCIAL MATTERS

Approach Through a variety of social sustainability initiatives, we seek to engage directly with the communities in which our associates live and work, which helps to create shared value and engage our worldwide team in the mission and purpose of the company. Our commitment to social sustainability is also expressed through our supplier diversity program.

Our most prominent community initiatives include our Glocal (global + local) program. Launched in 2014 by our CEES, Glocal encourages our employees to partner with local nonprofits and community organizations to advance our social sustainability efforts and nurture authentic engagement. We have identified and are taking action regarding specific social and environmental imperatives that create shared value, result in sustained customer and employee loyalty, and improve the communities where we have business operations. These actions include increasing female representation in the fields of science, technology, engineering and math, addressing nutrition and food waste reduction and supporting housing and shelter needs, among others. Our supplier diversity program embraces suppliers whose ownership is primarily minorities, women, veterans, LGBTQ individuals or people with disabilities.

Due diligence processes We track employee and community engagement data including the number of volunteers who participate in community or sustainability initiatives during the year and the number of hours volunteered. We use a 7-step strategic sourcing process that includes a Supplier Diversity Matrix, which enables us to avoid using price as the primary driver for supplier selection.

Policy outcomes / Key Performance Indicators Implementing Glocal and our supplier diversity program has contributed to significant increases in global contributions as measured by the number of associates who have volunteered to participate in community or sustainability initiatives, the total number of hours volunteered and the dollar value of philanthropic giving.

Spending on goods and services purchased from diverse-owned businesses also is up significantly in 2019.

- \$532 million in purchased goods and services from diverse-owned businesses
- \$8.4 million in philanthropic giving
- 36% of employees globally participated in community or sustainability initiatives

HUMAN RIGHTS

Approach We believe in fundamental standards that support our commitment to our employees, our business partners, our customers and our communities. We have adopted a number of policies which underline our commitment to human rights. Our Global Human Rights Policy aligns with basic working conditions and human rights concepts advanced by international organizations such as the International Labor Organization and the United Nations. Our Modern Slavery and Human Trafficking Statement outlines our commitment to taking steps to ensure that human trafficking and forced labor is not taking place in our supply chain or business. Our Business Partner Code of Conduct (BPCoC) prohibits human trafficking, including forced or child labor.

Due diligence processes We engage in reasonable due diligence and screening of customers and distributors to ensure compliance with laws that regulate international trade. We screen 100% of new suppliers on human rights and labor practices. In 2019, we formalized our process for onsite assessments of our supplier ESG practices, including human rights. We also established a Global Procurement Sustainability Council to work with suppliers on improving conditions and addressing non-compliances.

Policy outcomes Our Global Human Rights Policy is communicated to employees through our Code of Conduct training. As part of our annual compliance training, we have implemented a full training course dedicated to anti-human trafficking. Salaried employees in roles such as Legal, Human Resources and Global Integrated Supply Chain are assigned courses based on function and associated risks.

ANTI-CORRUPTION AND ANTI-BRIBERY

Approach We are proud of our strong business ethics and sustainable business practices, and our values centered in integrity, respect, teamwork, innovation and courage. Our values, ethics and commitment to sustainability are core to how we operate and serve customers.

Our Business Partner Code of Conduct applies to all entities doing business with us and communicates our expectations that our business partners will practice the highest legal, moral and ethical standards when conducting our affairs. This Code holds our business partners to the same high standards to which we hold ourselves.

Due diligence processes Business partners and service providers are risk-rated and vetted with higher risk third parties undergoing enhanced compliance due diligence. We leverage the services of a third-party vendor to conduct compliance screenings from thousands of global public records databases.

Policy outcomes Salaried employees receive role-based, online compliance training every year. Employees receive specific training on anti-corruption on a cycle determined by the risk rating of their role. Previous roles assigned to anti-corruption training were Business Strategy; Customer Service; Finance; General Management; Global Integrated Supply Chain; Human Resources; Legal; Marketing; and Sales. In 2019, employees in services roles received anti-corruption training.

BOARD OF DIRECTORS

Kirk E. Arnold
Former Chief Executive Officer, Data Intensity

Ann C. Berzin
Former Chairman and Chief Executive Officer, Financial Guaranty Insurance Company

John Bruton
Former EU Commission Head of Delegation to the United States and Former Prime Minister of Ireland

Jared L. Cohon, Ph.D.
President Emeritus of Carnegie Mellon University

Gary D. Forsee
Retired Chairman and Chief Executive Officer, Sprint Nextel Corporation and Former President of the University of Missouri System

Linda P. Hudson
Former Chairman and CEO of The Cardea Group and Former President and CEO of BAE Systems, Inc.

Michael W. Lamach
Chairman and Chief Executive Officer of Trane Technologies

Myles P. Lee
Former Chief Executive Officer and Executive Director of CRH plc

Karen B. Peetz
Former President, BNY Mellon

John P. Surma
Retired Chairman and Chief Executive Officer, United States Steel Corporation

Richard J. Swift
Retired Chairman, President and Chief Executive Officer, Foster Wheeler Ltd. and Former Chairman of Financial Accounting Standards Advisory Council

Tony L. White
Retired Chairman, President and Chief Executive Officer, Applied Biosystems Inc.

Annual General Meeting

The company's 2019 Annual Report on Form 10-K as filed with the United States Securities and Exchange Commission, and other company information, is available through Trane Technologies' website, www.tranetechnologies.com. Securities analysts, portfolio managers and representatives of institutional investors seeking information about the company should contact:

Shane Lawrence
Director, Investor Relations
704-655-5651

Date and Time
Thursday, June 4, 2020, at 8:00 a.m., local time

Location
Trane Technologies plc
800-C Beaty Street
Davidson, NC 28036

New York Stock Exchange



Transfer Agent and Registrar
Computershare
Telephone Inquiries: 866-229-8405
Website: www.computershare.com/Investor

Address shareholder inquiries with standard priority:
Computershare
PO BOX 505000
Louisville, KY 40233-5000

Address shareholder inquiries with overnight priority:
Computershare
462 South 4th Street Suite 1600
Louisville, KY 40202



ENTERPRISE LEADERSHIP TEAM

Michael W. Lamach
Chairman and Chief Executive Officer

Marcia J. Avedon, Ph.D.
Executive Vice President and Chief Human Resources, Marketing and Communications Officer

Jason E. Bingham
President, Residential HVAC and Supply

Paul A. Camuti
Executive Vice President and Chief Technology and Strategy Officer

Karin De Bondt
President, Thermo King, Americas

Allen W. Ge
President, Asia Pacific HVAC and Thermo King

M. Stephen Hagood
Senior Vice President and Chief Information Officer

Francesco Incalza
President, Thermo King Europe, Middle East and Africa (EMEA)

Christopher J. Kuehn
Senior Vice President and Chief Financial Officer

Jose La Loggia
President, Commercial HVAC Europe, Middle East and Africa (EMEA)

Randal Newton
Vice President, Engineering

Raymond D. Pittard
Transformation Office Leader

David S. Regnery
President and Chief Operating Officer

Donald E. Simmons
President, Commercial HVAC Americas

Keith A. Sultana
Senior Vice President, Supply Chain and Operational Services

Evan M. Turtz
Senior Vice President and General Counsel

Ireland
Shareholders in Ireland may participate in the Annual General Meeting remotely on June 4, 2020 at 1:00 p.m. (Dublin time) telephonically at the Arthur Cox Building, Ten Earlsfort Terrace, Dublin 2, D02 T380, Ireland.

This integrated annual report and the 2019 online ESG Report at www.tranetechnologies.com/sustainability-reports is produced in accordance with the G4 framework established by the Global Reporting Initiative (GRI) and reports on our financial and non-financial performance for the 2019 fiscal year. For more information on GRI, please visit www.globalreporting.org. To ensure the quality of our environmental, health and safety data, we assure selected data with a third-party provider. The results of this assurance can be found in our 2019 ESG Report at www.tranetechnologies.com/sustainability-reports. At the time of publication, assurance of our environmental and safety data from operations was not yet complete and the data presented in this document is subject to change. This annual report, including the letter to shareholders, contains "forward-looking statements," which are statements that are not historical facts, including our ability to address environmental and social challenges, the future success of our operational excellence initiatives, our future financial performance, our growth, market opportunities and our positioning in and the performance of the markets in which we operate. These statements are based on currently available information and our current assumptions, expectations and projections about future events. While we believe that our assumptions, expectations and projections are reasonable in view of the currently available information, you are cautioned not to place undue dependence on our forward-looking statements. Forward-looking statements speak only as of the date they are made and are not guarantees of future performance. They are subject to future events, risks and uncertainties—many of which are beyond our control—as well as potentially inaccurate assumptions that could cause actual results to differ materially from our expectations and projections. You are advised to review the factors described under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Conditions and Results of Operations" in our Form 10-K for the fiscal year ended December 31, 2019, and any further disclosures we make on related subjects in materials we file with or furnish to the SEC. We do not undertake any obligation to update any forward-looking statements.

“ One company can change an industry and one industry can change the world. ”

Michael W. Lamach

An aerial photograph of a large cable-stayed bridge spanning a wide river. The bridge has two tall, rectangular concrete pylons. Numerous yellow cables fan out from the top of each pylon to support the bridge deck. The river is a deep blue-green color. On the left bank, there are railroad tracks and a multi-lane highway with several vehicles, including a white semi-truck. On the right bank, there is a road with cars and some greenery. The text "Our Company" is written in a large, white, sans-serif font, centered over the right side of the bridge. A small purple horizontal bar is located below the word "Company".

Our Company

A WORD ABOUT THE REPORT

This report shares and celebrates the results of our Climate and Industrial segments, known in 2019 as “Ingersoll Rand.” Going forward, Trane Technologies will issue separate ESG reports.

At Trane Technologies, we look ahead, pushing what’s possible for our customers, our business and the world. We innovate to create opportunities, overcome climate challenges and—as the past decade has shown—boldly make the connection between sustainability and business results.

Introducing Trane Technologies

In the first quarter of 2020, Ingersoll Rand separated its Industrial segment and combined it with Gardner Denver, creating a global leader in mission-critical flow creation and industrial technologies called “Ingersoll Rand.” The HVAC and transport refrigeration assets of the former Ingersoll Rand became “Trane Technologies.” As Trane Technologies, we are building on our leadership in sustainability and redefining the status quo for our industry to challenge what is possible for our customers and the world.

Our Purpose

Our world contends with unprecedented global challenges. Urbanization is dramatically reshaping our communities, our natural resources are more constrained than ever before, and climate change is accelerating at an astonishing rate. At Trane Technologies, our purpose is clear: boldly challenge what’s possible for a sustainable world.

Achieving Our 2020 Targets

In 2013, against the backdrop of these environmental and social challenges coming into global focus, we decided to act. We set 2020 Targets that pushed sustainability forward—in our company and our industry.

Our objectives were to:

- Operate ethically and transparently
- Cultivate a sustainable and innovative supply chain
- Optimize natural resources in our operations
- Innovate to deliver optimal economic and performance value over the product life cycle
- Build a winning culture that is values-based and inclusive
- Create shared value by putting more back into society than we take out

Six years later—and ahead of schedule—we’ve achieved 30 specific and ambitious sustainability targets that we set out to meet by 2020. This isn’t the end of our sustainability journey. We know there’s more work to do.

Progress against each of our 2020 Targets is outlined below.

GOVERNANCE

Enhance efforts to uphold our standards for ethical business conduct, transparency, compliance and oversight

GOAL	TARGET	PROGRESS TOWARD TARGET
Adhere to a Global Framework for Reporting Our Sustainability Progress	Respond to the annual CDP request	Achieved
Align with Global Human Rights Initiatives	Maintain and update a Global Human Rights Policy	Achieved—read about our human rights policy
Ensure Standard Guidelines for Responsible Business Behavior to Enhance the Reputation of Our Company and Brands	Achieve annual training and certification on the Code of Conduct by employees and business partners	Achieved—all salaried employees required to complete annual code of conduct training program, including an attestation of compliance
	Issue robust communications to all employees to sustain ethical business culture	Achieved—read about our approach to governance, ethics and risk management
Maintain a Governance Structure that Enables the Delivery of Our Long-Term Sustainability Plan	<div>Board of Directors</div> <div>Enterprise Leadership Team</div> <div>External Sustainability Advisory CouncilInternal Sustainability CouncilCEES</div>	Achieved—read about our governance

SUPPLIERS

Collaborate with suppliers to cultivate a sustainable and innovative supply chain to meet customer needs

GOAL	TARGET	PROGRESS TOWARD TARGET
Ensure Alignment of Business Partners to a Common Set of Ethical Beliefs and Expectations	100% of new suppliers have agreed to our Business Partner Code of Conduct (BPCoC)	Achieved —we require all new suppliers to agree to our BPCoC in our Supplier Onboarding Standard Work. We also include our BPCoC as part of our Terms & Conditions for PO
	60% of our direct spend will be with suppliers in our Preferred Supplier Program	At the end of 2019, 42% of direct spend was with preferred suppliers, due in part to our increasingly stringent preferred supplier requirements as we continue to push for leadership. We are looking at category coverage to assess whether we have a preferred supplier available for all of our spend
Leverage Ingersoll Rand Product Development Process (IRPDP) to Use Preferred Suppliers	80% of Early Sourcing Work Plan (ESWP) completed in Phase 1 of IRPDP	ESWP is used to grow our spend with current preferred suppliers. In 2019, 76% of ESWP was completed in Phase 1 of the IRPDP
Maximize Marketplace Connectivity by Fostering Supplier Diversity	Extend supplier diversity program to spend with diverse companies globally	Achieved —\$532 million global spend with diverse-owned businesses and \$311 million global spend with women-owned businesses in 2019
Partner with Suppliers to Minimize the Environmental Impact of Our Supply Chain	All businesses will have a packaging improvement plan	Achieved —every strategic business unit has been involved in packing improvement projects
	Establish baseline of suppliers who have participated in waste, energy and water reduction programs by 2016 and track improvement through 2020	Achieved —Gensuite supplier platform launched and 90% of preferred suppliers enrolled
	Establish baseline of suppliers in water-stressed areas who have a water conservation plan by 2016 and track improvement through 2020	Achieved —tracking through Gensuite supplier platform
	Reduce emissions due to freight: goal is 5% reduction	In 2019, we increased our average truckload weight by 4%, which led to a reduction of more than 3,200 truckloads. We shipped more than 1,700 truckloads via intermodal, which emits 63% less CO ₂ emissions than a truck

SUPPLIERS (Continued)

GOAL	TARGET	PROGRESS TOWARD TARGET
Minimize Impacts of Our Customers by Ensuring a Viable Supply Chain	Designate 90% of direct material spend assessed on a quarterly basis for risk	Achieved —100% of direct material spend was assessed quarterly for risk in 2019

GOAL	TARGET	PROGRESS TOWARD TARGET
Optimize Energy Use	Increase energy efficiency in owned facilities by 10%	Achieved —improved by 27%
	Increase fuel efficiency in owned fleet	Achieved —5% increase in efficiency and approximately 3,300 metric tons of CO ₂ e saved in 2019
	Evaluate all long-term leases >100K sq. ft. against environmental and energy criteria	Achieved —developed guidebook with environmental criteria and certifications
Reduce Our Scope 1 and 2 Greenhouse Gas (GHG) Emissions	Reduce Scope 1 and 2 emissions by 35%	Achieved —36% reduction in absolute emissions 50% decrease in emissions intensity
Improve Waste Management in Our Operations	Reduce non-hazardous waste to landfill by 30%	Achieved —31% reduction in intensity
	Reduce hazardous waste by 20%	3% reduction in intensity
Improve Water Management in Our Operations	Reduce water used at sites located in water-stressed areas by 25%	Achieved —39% reduction

CUSTOMER OUTCOMES

Innovate to deliver optimal economic and performance value over product life cycle

GOAL	TARGET	PROGRESS TOWARD TARGET
Design Products for World-Class Resource Efficiency during Use of Product	Establish portfolios that meet world-class environmental criteria (energy consumption, emissions from the use of the product)	Achieved —EcoWise™ portfolio
Reduce Direct GHG Emissions	Reduce the GHG refrigerant footprint of our products by 50%	Achieved —More than 80% reduction in the GHG refrigerant footprint of our products or approximately 175% of our target
Increase Reliability and Durability	Improve quality and time to solution	Measured by our Quality-Delivery-Cost metric
Reduce Environmental Impact at End of Products' Useful Life	Perform a life cycle assessment (LCA) on 100% of new products	Read about our progress and approach to product life cycle and materials
	100% of New Product Development (NPD) projects in IRPDP have end-of-use manual created	6 end-of-use manuals created
Improve Health and Safety	Improve service ability through IRPDP	Achieved —Standard Work developed

OUR PEOPLE

Build a winning culture that is values-based, inclusive and engages and develops people for premier performance

GOAL	TARGET	PROGRESS TOWARD TARGET
Attract and Retain Top-Quality, Diverse Talent and Leadership	Create slates with diverse candidates	Achieved —targets integrated into Standard Work. Read about our progress and approach to diversity and inclusion
	Retain 95% of key talent	Achieved —96.1% retention
Develop People and Processes to Build Strategic Capabilities	95% of employees have development plans in place	Achieved —97% of employees
	Improve Leadership Effectiveness Index by 80%	74% favorable
	Achieve a Growth and Development Index score of 75% for strategic capability development	Achieved —75% as of 2019

OUR PEOPLE (Continued)

GOAL	TARGET	PROGRESS TOWARD TARGET
Foster an Inclusive, Engaging Workplace that Connects Employees to Company Purpose	Achieve employee engagement rate of 80%	Maintained a world-class employee engagement score; read more in company culture
	75% of employees participate in community or sustainability initiatives	36% of employees participated in 2019
Provide a Safe and Secure Workplace that Supports Employee Well-Being and Productivity	Provide accessibility to wellness programs to 75% of employee base	Achieved —96% of employee base has access to wellness programs
	Achieve world-class performance in lost time incident rate, 60% reduction from a 2013 baseline	46% reduction; read about our approach and recommitment in occupational health and safety

CORPORATE CITIZENSHIP

Address social and environmental imperatives that create shared value, result in sustained customer and employee loyalty, and improve the communities where we have business operations

GOAL	TARGET	PROGRESS TOWARD TARGET
Expand Competency in Energy and Other Resource Efficiency	Share energy conservation knowledge with 200 officials in developing regions	Achieved —shared knowledge with 202 officials
	Launch signature program to increase female representation in manufacturing positions and advance technical workforce development programs at 100 community colleges and technology institutes worldwide	Achieved —met through participation in vocational technical programs and Tools for Schools program
Expand Competency in Science, Technology, Engineering and Math (STEM)	Sponsor 20,000 females in STEM-related activities to increase career interest	Achieved —met through support of mobile science labs in India
Address Nutrition and Food Waste Reduction	Provide food and nutrition education to 200,000 children	Achieved —met through support of Feeding Children Everywhere, American Heart Association and Second Harvest
Support Housing and Shelter Needs	Volunteer 40,000 hours related to housing and shelter	Achieved —51,453 hours volunteered

2030 Sustainability Commitments

Pushing what’s possible means hitting our targets then immediately setting new ones. If we are going to change our industry and help people access sustainable cooling comfort and healthy food, we need to keep making progress.

As Trane Technologies, we are taking on bigger, bolder [2030 Sustainability Commitments](#). They challenge us to lead by example, collaborate with our customers to drive sustainable innovation and create opportunity for all in our workplace and our communities. Our commitments are synched with the time horizon of the United Nations Sustainable Development Goals (U.N. SDGs) to ensure we’re contributing to the collective actions needed to drive global, sustainable progress. We also have more work to do in order to achieve all our 2020 Targets—and we remain committed to tracking and continually improving on these metrics.

Achieving our goals won’t be easy. But we are relentless innovators at Trane Technologies. When we look at the world’s challenges, we see possibilities. Continuing the momentum we started building in 2013, we are taking the following actions to secure a sustainable future by 2030:

- Scaling technology, innovation and sustainability strategies to enable more efficient customer solutions
- Transforming our supply chain and operations to have a restorative impact on the environment
- Increasing opportunity for all, strengthening economic mobility and bolstering the quality of life of our people and those in the communities where we operate and serve

2030 SUSTAINABILITY COMMITMENT FOCUS AREAS AND GOALS

CUSTOMER OUTCOMES

- Reduce customer carbon footprint by 1 gigaton (or 1 billion metric tons of CO₂e)
- Design systems for circularity
- Increase access to heating and cooling, fresh food, water and clean air



OPERATIONS & SUPPLY CHAIN

- Achieve carbon neutral operations
- Deliver zero waste to landfills
- Become net positive in water use
- Achieve 10% absolute reduction in energy consumption



PEOPLE

- Achieve enhanced workforce diversity reflective of our communities
- Achieve gender parity in leadership roles
- Maintain world-class safety metrics
- Maintain world-class engagement metrics
- Provide wellness offerings for full global population



CITIZENSHIP

- Broaden community access to well-being services including food/nutrition, housing and shelter, transportation and climate comfort
- Invest in STEM workforce development and retraining programs
- Establish network of partners to foster STEM and early education experiences
- Launch seed grants for critical mobility needs



GLOBAL TRENDS IMPACTING OUR WORLD AND INDUSTRY

Urbanization

Urban population growth is changing the dynamics of food, energy, water and land consumption.

Resource Constraints

Natural resource scarcity like energy and water is pressuring food supplies, health and wellness, and general infrastructure.

Climate Change

The world is becoming warmer with more unpredictable weather patterns and record greenhouse gas emissions.

Workforce Dynamics

Aging populations, shifting demographics and digital connectedness are reshaping the global workforce.

Awards and Rankings

External recognition is one sign that our sustainability efforts are making a difference. For nine years running, we have been named to the Dow Jones World and North America Indices (DJSI)—continued placement on this index series showcases progress toward our sustainability targets, and our position as an ESG leader among peer companies. In 2019, we were also awarded the World Environment Center’s 35th Gold Medal Award for International Corporate Achievement in Sustainable Development.

We are proud of our accomplishments—and up to the challenge of making even bigger changes as we set out to achieve our 2030 Sustainability Commitments.

- Dow Jones Sustainability Index—9th consecutive year
- Fortune World’s Most Admired Companies—7th consecutive year
- Human Rights Campaign Foundation Corporate Equality Index, Best Places to Work for LGBTQ Equality—3rd consecutive year
- FTSE4Good Index Series—5th consecutive year
- Corporate Knights 2019 Global 100 Most Sustainable Corporations Index
- Alliance to Save Energy, STAR Award for Doubling Down on Efficiency
- Forbes America’s Best Employers, Best Large Employers, Most Sustainable Companies, Best Employers for Women and Best Employers for Diversity
- Corporate Responsibility (CR) Magazine, 2019 100 Best Corporate Citizens—#60
- World Environment Center Gold Medal Award for International Corporate Achievement in Sustainable Development

Our Governance

Sustainability is the starting point for everything we do—how we innovate and partner with customers, how we manage our supply chain and operations and how we engage our people and communities. It all starts with strong corporate governance and accountability at all levels of the company:

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Maintain a governance structure that enables the delivery of our long-term sustainability plan —**Achieved**

Executive Oversight: Our Sustainability Strategy Council includes company executives who define and lead our sustainability efforts. The Council meets quarterly and reports progress annually to the Enterprise Leadership team.

Board-Level Accountability: The Corporate Governance and Nominating Committee of our Board of Directors oversees risks associated with board succession, conflicts of interest, corporate governance and sustainability. Additionally, the successful achievement

of milestones to further implement operational excellence, the business operating system and sustainability initiatives factor into individual performance objectives that help determine each Named Executive Officer’s Annual Incentive Matrix award.

Daily Management: Day to day, our Center for Energy Efficiency and Sustainability (CEES) team is responsible for integrating sustainability into the business. The CEES team facilitates our sustainability-related work with government and nongovernmental organizations, universities and industry leaders. They bring forward new ideas and requirements and are also responsible for tracking and disclosing our progress.

External Engagement and Guidance: We leverage the insights of external thought leaders who sit on our Advisory Council on Sustainability. This group’s expertise in climate risks and opportunities, infrastructure development, energy policy, circular design and product impacts, social progress and technology helps us to understand critical issues and apply that learning to our strategy.

Read more about our [governance](#), [materiality assessment](#) and [value chain](#).

Governance, Ethics and Risk Management

Integrity, respect, teamwork, innovation and courage—our core values—are fundamental to our reputation and central to our philosophy of corporate governance. Guided by our [Code of Conduct](#), we uphold the highest standards of legal and ethical conduct to do what is in the best interest of our stakeholders, the environment and society.

While some of our standards and rules reinforce legal imperatives in places where we operate, each one of them reflects our commitment to fairness, honesty and ethical business practices. Read more about our approach to governance, ethics and compliance in our 2019 Annual Report and on [our website](#).

CODE OF CONDUCT

Our Code of Conduct embodies our approach for managing employment, labor relations, human rights and diversity, as well as company policies on equal employment opportunity, affirmative action and harassment. It reinforces our values and describes how we interact with our customers, suppliers and colleagues. The essence of our Code is simple:

- We act lawfully and ethically
- We ask if we have a question about the Code or an ethics issue
- We speak up to report concerns about unethical conduct

Signed by our chairman and CEO, the Code applies to our Board of Directors and every one of our employees, regardless of role or location. We also expect that all entities doing business with us practice the highest legal, moral and ethical standards as outlined in our [Business Partner Code of Conduct](#). Read more about our approach to [supply chain transparency and performance](#).

ANTI-CORRUPTION

Our [Code of Conduct](#) and associated [Anti-Bribery and Corruption Policy](#) hold all our employees to the highest standards of integrity and legal compliance everywhere we do business. Our Board of Directors oversees the policy, which prohibits all company employees from giving and offering anything of value in exchange for business advantage. This includes a complete ban on facilitation payments to secure routine government functions, even though such payments are permissible under the Foreign Corrupt Practices Act.

All our business partners and service providers are risk-rated and vetted, and higher risk third parties undergo enhanced compliance assessments. We use a third-party vendor to conduct compliance screenings from thousands of global public record databases. These screenings help identify any potential business partners who are not upholding our high standards for ethics and [Code of Conduct](#).

UPHOLDING OUR CODE

The Audit Committee of our Board of Directors annually reviews our compliance program, including compliance with the Foreign Corrupt Practices Act. We review any significant ethics and

compliance matters at least five times per year. On the local level, our executive-level global Business Integrity Council and region-level councils operationalize compliance practices and raise local issues to the executive-level council to consider and fix. Read more about our [Corporate Governance Guidelines](#) and [board committees and charters](#).

All (100%) salaried employees complete an annual Code of Conduct training program, including an attestation of their compliance. The training is role-based so that each employee focuses on three to four topics that are most relevant to their position within their company. For example, in 2019, we required the anti-corruption training module of employees in service roles.

Any employee who has a legal or ethical concern can contact the [Ethics HelpLine](#), or get help within the Human Resources and Legal departments or the Ethics and Compliance Group. We take violations of our [Code of Conduct](#) seriously by investigating all reports to the [Ethics HelpLine](#) and taking immediate action to ensure compliance. Retaliatory actions are not tolerated.

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Achieve annual training and certification on Code of Conduct by employees and business partners
—Achieved

Issue robust communications to all employees to sustain an ethical business culture
—Achieved

Customer Satisfaction

We work collaboratively with our customers and partners to lead the industry forward with innovative climate solutions. Measuring customer satisfaction provides insights that drive our innovation and enables us to continue delivering market-leading brands and exceed customer expectation.

We measure customer satisfaction through customer relationship management (CRM) systems to drive common processes, connect deep insights about customers and competitors, and drive strategic growth programs. Our Customer Support Index (CSI) measures specific attributes of the full customer experience from sales to service and support.

This consistent, global measurement process captures customer feedback and CSI scores for each business. The data is updated and reviewed quarterly with business leadership and used to develop action plans to address items that require corrective action. We identify CSI score targets for both channel and end customers and report year-over-year progress annually. While we do not report our CSI scores publicly, we continuously exceed our planned targets.

Read more about our approach to [technology and innovation](#) and [product safety and reliability](#).

TEAMING UP WITH THE CAROLINA PANTHERS

The home of the Panthers came to us with a cooling challenge the size of a 75,000-seat football stadium—one that’s warmed by the southern sun. On hot Carolina days, the chillers in place couldn’t maintain a constant temperature. Bank of America Stadium would bring in a 500-ton rental chiller for supplemental cooling just to get through. Trane experts did a thorough analysis and created a solution that would ensure air-conditioned comfort and substantial energy savings for decades to come. No additional electrical modifications required.

We installed three new 1000-ton Trane CenTraVac chillers that accommodate the same footprint while reducing the stadium’s energy use by about 1.7 million kilowatt-hours per year. That’s equivalent to taking 271 cars off the road or powering 190 homes each year. With the new chillers in place and running, the stadium expects to annually save \$80,000 in reduced energy costs. To celebrate the positive impact, Trane honored the Panthers with the Energy Efficiency Leader award.

Public Policy Advocacy and Compliance

We don’t wait for regulations to catch up with how we operate and innovate. At the same time, we know public policy plays a role in creating system-wide change for a sustainable future. This benefits us and our industry.

That’s why we engage with policymakers to find solutions to the sustainability issues that are most important to our business and stakeholders. We focus most on energy efficiency, air quality and refrigerant policy—supporting policies that facilitate market transitions to more energy-efficient technologies, particulate reductions and products that use next-generation, low global warming potential (GWP) refrigerants.

We engage in public policy through associations and coalitions to understand and help shape future regulations in these areas. This includes active participation in international forums, and, when appropriate, our technical policy experts work directly with regulators and other key stakeholders in advance of and during the rulemaking process.

ENERGY EFFICIENCY AND RENEWABLE ENERGY POLICY

We set and already exceeded our 2020 citizenship target to share energy conservation information with officials in developing regions. In 2019, we continued to educate government officials and industry bodies around the world on energy-efficient and low GWP technologies. We led national and international committees and working groups, including ASHRAE, UN and

ISO, and served as a resource to state and local governments to help them understand the next-generation refrigeration landscape. We also worked with the Air Resources Board in California, as well as with groups in China and India, to help determine ways to achieve the Paris Accord and Kigali Amendment commitments. Read more about our citizenship work.

Alongside initiatives to reduce energy consumption, we believe that a practical transition to a decarbonized electricity grid is critical to resiliency. That's why we support efforts to make cost-effective forms of renewable energy accessible to all businesses and homeowners and participate in renewable energy forums to share our expertise as a corporate buyer.

REFRIGERANT POLICY

We want our customers to have choices and guidance about how and when to transition to low GWP refrigerant alternatives. We continue to introduce and evaluate next-generation refrigerants for global markets

to ensure we have the best balance of performance, safety, reliability and availability as well as a strong service organization and supply chain in place to support the transition. Our next-generation chillers are being sold in more than 30 countries, most of which do not have regulations in place. Many countries and U.S. states are acknowledging the benefits of these products on emissions and are introducing regulations that require them.

We continue working with suppliers through our 2020 Climate Commitment and new 2030 Sustainability Commitments to identify and develop a viable, safe, long-term, low GWP alternative to R-410A, which is the most prevalent hydrofluorocarbon (HFC) used in heating, ventilation and air conditioning (HVAC) today. This alternative is crucial to the success of the Kigali Agreement to the Montreal Protocol, which seeks to phase down HFCs globally by approximately 85% by 2046.

AIR QUALITY

We also focus on air quality because urbanization is increasing pollution in cities around the world. In Europe, for example, the proliferation of diesel in passenger and commercial vehicles is increasing levels of particulate and other emissions that have negative health impacts. In line with legislative

CHALLENGING WHAT IS POSSIBLE

We act on climate challenges, and then we don't get complacent. This year we launched our new 2030 Sustainability Commitments. Alongside our operational and product energy efficiency and emissions reduction targets, we advocate in favor of efficiency and clean energy. For example, we're working to increase energy efficiency targets in North Carolina. In recognition of our contribution to this ongoing policy discussion among North Carolina regulators, we were named a 2019 Clean Energy Champion by Conservatives for Clean Energy and Chambers for Innovation and Clean Energy.

efforts to create pollutant thresholds, our Thermo King brand is investing in power technology with significantly lower pollutants. By converting our fleet to hybrids, we continue to improve our fuel efficiency by 5% year-over-year.

POLITICAL ACTIVITY

The laws of many countries prohibit or strictly limit contributions by corporations to political parties and candidates. Although our employees may engage in personal political activity, they are prohibited from doing so on behalf of the company or as a company employee.

In the United States, we manage a nonpartisan political action committee (PAC), which is compliant with all applicable laws and is regulated by the Federal Election Commission (FEC). Under the FEC, all funds received by the PAC, and resulting contributions to federal candidates, are publicly disclosed in the FEC Campaign Finance database. Our employees are not permitted to receive any type of reimbursement from the company for personal contributions to political parties and candidates.

Employee Contributions to Ingersoll Rand Federal Political Action Committee (U.S. Only)

2019	2018	2017	2016	2015	2014	2013
\$4,000	\$5,000	\$28,500	\$23,500	\$11,000	\$37,500	\$7,500

POLICY ADVOCACY

Public policy advocacy, association memberships and lobbying activities help support a policy environment that aligns with the interests of our business and stakeholders. Some of our largest 2019 policy advocacy expenditures included:

- Advocating to phase down high global warming potential HFCs in multiple countries and U.S. states
- U.S. federal lobbying in support of ratification of the Kigali Amendment to the Montreal Protocol on Substances That Deplete the Ozone Layer
- U.S. federal lobbying in support of the Energy Savings and Industrial Competitiveness Act and the American Innovation and Manufacturing Act
- Advocating for policies that encourage non-battery energy storage like thermal energy storage technologies in U.S. states
- Provided formal testimony to the U.S. Senate Committee on Energy and Natural Resources regarding International Efforts to Increase Energy Efficiency and Opportunities to Advance Energy Efficiency in the United States
- Advocating for clean energy plans and beneficial electrification strategies in several regions and U.S. states
- Advocating for U.S. federal tax incentives encouraging energy efficiency in new and existing homes
- Advocating for sustainable building policies in several geographic regions/countries

In 2019, we belonged to the following U.S. trade, industry and policy associations:

- Advanced Energy Economy (AEE)
- Air-Conditioning, Heating and Refrigeration Institute (AHRI)
- Alliance to Save Energy (ASE)
- American Council for Energy Efficient Economy (ACEEE)
- Business Council for Sustainable Energy (BCSE)
- Business Roundtable*
- California Energy Storage Alliance (CESA)
- Charlotte Regional Business Alliance
- Compressed Air and Gas Institute
- Consortium for Energy Efficiency (CEE)
- Energy Storage Association (ESA)
- European Partnership for Energy Efficiency (EPEE)
- International Light Transportation Vehicle Association (ILTV)
- Midwest Energy Efficiency Alliance (MEEA)
- National Association of Energy Service Companies (NAESCO)
- National Association of Manufacturers (NAM)
- National Golf Course Owners Association (NGCOA)
- North Carolina Chamber of Commerce
- North Carolina Building Performance Association (NCBPA)
- North Carolina Sustainable Energy Association (NCSEA)
- Northeast Energy Efficiency Partnerships (NEEP)
- South-Central Partnership for Energy Efficiency as a Resource (SPEER)
- Southeast Energy Efficiency Alliance (SEEP)
- Southwest Energy Efficiency Partnerships (SWEEP)
- The Alliance for Responsible Atmospheric Policy (ARAP)
- The Energy and Resources Institute (TERI)—India
- U.S. Chamber of Commerce*

*Association memberships we exited in 2019

527 ORGANIZATIONS AND SUPER PACS

We have not contributed to 527 organizations—political organizations created under Section 527 of the Internal Revenue Code other than political action committees and candidates—and have no intention of doing so. We also do not, and have no intention to, contribute to federal independent expenditure-only committees, also known as “super PACs.”

Environment, Health and Safety (EHS) Management

Our operating practices safeguard our people and protect the environment.

Driven to achieve a zero injury and incident culture and meet our environmental goals, we integrate sound environmental, health and safety (EHS) practices into our everyday activities with stakeholders. Our approach includes:

- Complying with or exceeding requirements of global, national, state and local statutes, regulations and standards that protect the environment, human health and safety. In all cases—regardless of whether applicable laws and regulations exist—we apply sound EHS management practices that continue to drive our strong compliance record
- Conducting regular internal and third-party audits to verify compliance with EHS regulatory requirements and company standards
- Monitoring and understanding emerging issues, regulatory changes and technological innovations

Some refrigerants used in our products are considered ozone-depleting substances and may have higher global warming potential. Our operating and handling practices minimize refrigerant leaks and avoid environmental and safety impacts.

Our EHS data is assured annually by a third party.

OUR EHS POLICY

Signed by our chairman and CEO, our [EHS Policy](#) is a promise to our people, customers, partners, shareholders and communities that we will strive for sustainability excellence and remain committed to operating safely and protecting the environment.

The policy is overseen by our senior vice president of supply chain and operations, who is the executive sponsor of EHS programs across our operations. Our EHS Council of corporate and business leaders meets regularly to develop or enhance our EHS management standards. Executive and facility-level leadership teams are responsible for tracking and monitoring performance, which we measure through key performance indicators such as injury rates and greenhouse gas (GHG) emissions.

ENVIRONMENT AND CLIMATE CHANGE

We’re innovators in sustainability, and that starts with our operations. Our EHS policy helps us focus on how we are going to minimize the environmental footprint of our operations, our product distribution and logistics. This includes executing sound pollution prevention programs targeted at waste, energy and water conservation, reducing non-renewable natural resources, increasing the reuse and recycling of materials and reducing GHG and other environmentally harmful emissions.

We focus on performance monitoring and improvement in the following areas:

- Pollution prevention, environmental management and integrated permitting
- GHG and air emissions management, including NOx and SOx emissions, which primarily result from our fleet, and refrigerant emissions, which are an essential component of many of our products
- Water supply management, including a water quality management system
- Wastewater discharge management
- Waste management

Read more about our approach to [climate change](#) and how we are managing [GHG emissions](#), [pollutant emissions and refrigerants](#), [energy](#), [water](#) and [waste](#).



SAFETY

We work hard to keep our employees safe and are always trying to do better. We annually train the majority of employees at our manufacturing sites and other large locations, in addition to those who complete service work at third-party locations, on sound EHS practices.

The U.S. Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1904 is our basis for recording and reporting accidents at our sites around the world. And our sites are expected to comply with local regulations when they are stricter than the U.S. OSHA standard.

We focus on performance monitoring and improvement in the following areas:

- General safety and health management
- Personal protective equipment
- Hazardous substance management
- Dangerous substances
- Physical hazards
- Mechanical hazards
- Fire protection

Global health issues are addressed through multiple mechanisms, including high-risk travel destinations, global crisis emergency planning, practices for emergency medical responders and company health programs, among others. We have also planned additional awareness training for service employees who perform work in medical health care facilities.

For all operations that retain purchased service contractors, we provide Standard Work that requires the approval of contractors, including a review of the company's safety performance and determination that they have the necessary training for services performed. We also provide appropriate on-site EHS orientation training to each contractor before any work begins.

Read more about our approach to [occupational health and safety](#) and how we manage [product safety and reliability](#).

AUDITS AND DUE DILIGENCE

Big ideas mean nothing if you don't make them happen. One way we make sure that our operations are sustainable is through audits and due diligence.

Key facilities conduct annual EHS self-assessments according to a standard company-wide protocol. These assessments identify opportunities that will improve EHS performance and continue to lead on sustainability.

Through a combination of third-party consultants and internal EHS staff, we audit each of our sites on a frequency that depends on the site's complexity—the size, staffing and nature of manufacturing operation, as well as the scale of requirements and actionable duties within EHS permits, licenses and regulations.

During acquisitions, we complete formal due diligence that includes EHS. Change management programs are implemented for all operations we acquire, new operations that we open, and newly introduced or redesigned products. We also perform risk assessments at multiple levels, including pre-task, pre-project, within change management and when evaluating overall enterprise risks.

We do not subscribe to Article 15 of the Rio Principles and do not address the precautionary approach and principle. Our company did not receive any significant fines for noncompliance in 2019. Read more about our [EHS Policy](#).

Memberships and Partnerships

Partnerships are core to our success. In addition to the list below, read more about our memberships in [trade, industry and policy associations](#).

- AHC Group
- AmCham Shanghai
- American Belt and Road Working Group under the U.S. Embassy
- American Center for Life Cycle Assessment
- American Chamber of Commerce in India (AmCham India)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- Association of Climate Change Officers (ACCO)
- Association of Energy Engineers (AEE)
- Australian Ladies Professional Golf
- British Compressed Air Society (BCAS)
- China Federation of Logistics and Purchasing (CFLP)
- China General Machinery Industry Association—Compressor Branch
- China Refrigeration and Air-Conditioning Industry Association (CRAA)
- Confederation of Indian Industries (CII)
- Corporate Eco Forum (CEF)
- Global Environmental Management Initiative (GEMI)
- Golf Management Australia
- Golf Management New Zealand
- GreenBiz Executive Network (GBEN)
- Hydraulic Institute
- International Code Council
- Manufacturers Alliance for Productivity and Innovation (MAPI)
- Material Handling Institute (MHI)
- National Association of Environmental Management (NAEM)
- PGA of Australia
- Renewable Energy Business Association (REBA)
- Residential Energy Services Network (RESNET)
- Shanghai Green Building Association
- Shanghai Energy Conservation Center

- Sustainable Energy for All (SEforALL)
- Shanghai Refrigeration Institute
- The Aspen Institute
- The China Construction Machinery Association—Sightseeing Vehicle Branch
- The Conference Board
- U.S. Business Council for Sustainable Development (US BCSD)
- U.S. Green Building Council (USGBC)
- U.S. Regional Energy Efficiency Organizations: SPEER, MEEA, SEEA, SWEEP, NEEP, NEEA
- Verband deutscher Maschinen-und Anlagenbau (VDMA)
- World Environment Center
- Rocky Mountain Institute—working with RMI on Global Cooling Prize
- Climate Generation—we gave them a grant this year and work with them on STEM initiatives in sustainability
- Outdoor Power Equipment Institute
- PGA of America
- Club Managers Association of America
- U.S. Kids Golf
- Association of Physical Plant Administrators (APPA)
- PGA
- European Tour
- Saint Andrews Links (The Home of Golf)
- NGCOA Canada



Charters

We align with several charters that support and advance our sustainability goals.

CEO Action for Diversity and Inclusion

The largest CEO-driven business commitment to advance diversity and inclusion in the workplace, representing more than 450 CEOs and presidents.

Clean Energy Ministerial (CEM) Advanced Cooling (AC) Challenge

The AC Challenge urges governments, companies and other stakeholders to make, sell or install super-efficient air conditioner or cooling solutions that are smart, climate-friendly and affordable. It is a call to action to recognize that access to cooling improves health, productivity, economic growth and education.

Climate and Clean Air Coalition HFC Initiative

Under the HFC Initiative, coalition partners support the development of HFC inventories and studies, information exchange on policy and technical issues and demonstration projects to validate and promote climate-friendly alternatives. We also support technologies and various capacity-building activities to disseminate information on emerging technologies and practices to transition away from high global warming potential HFCs and minimize HFC leakages.

Digital Climate Alliance

An ad hoc private-sector coalition focused on spearheading U.S. policy and legislative engagement efforts around the building nexus between digitalization and corporate sustainability.

EP100

The Climate Group’s initiative to bring together companies to commit to doubling their energy productivity with more than 70 member companies to date.

EP 100 Cooling Challenge

EP100 members commit to identifying ways of cooling their operations as efficiently as possible—optimizing the contribution of efficient, clean cooling in meeting their energy productivity goals.

Global Human Rights Policy

Many of the standards set forth in our Human Rights Policy align with basic working conditions and human rights concepts advanced by international organizations such as the International Labor Organization and the United Nations.

Paradigm for Parity

A coalition of business leaders, board members and academics who are committed to addressing the gender gap in corporate leadership.

RE100

The Climate Group’s initiative to bring together companies to commit to procuring 100% of their electricity consumed from renewables to accelerate change towards a zero-carbon grid with more than 200 member companies to date.

Sustainable Energy for All (SEforALL)

An international organization working with governments, the private sector and civil society to drive further, faster action toward achievement of Sustainable Development Goal 7 (SDG7)—which calls for universal access to sustainable energy by 2030—and the Paris Agreement—which calls for reducing greenhouse gas (GHG) emissions to limit climate warming to below 2° Celsius.

Task Force on Climate-Related Financial Disclosures

The TCFD supports a transition to a low-carbon economy, more efficient allocation of capital and an improved dialogue between investors and companies. Signatories include more than 930 organizations representing a market capitalization of more than 11 trillion USD.

The Cool Coalition

A global multi-stakeholder network that connects governments and the private sector to finance, academia, and civil society groups to facilitate knowledge exchange, advocacy and joint action towards a rapid global transition to efficient and climate-friendly cooling.

The Three Percent Club

A collaboration of governments, the private sector, and financial institutions that commit to working together to put the world on a path to 3% annual efficiency improvement.

U.S. Department of Energy (DOE) Better Plants Challenge Partners

Having met our original goal set in 2009 as part of the DOE Save Energy Now Leaders program, we became a Better Plants Challenge Partner in 2016 with a commitment to reduce energy intensity by 35% by the end of 2019.

WEConnect International

WEConnect International certifies and connects women-owned businesses to global, corporate buyers.

We Are Still In

An organization of more than 2,800 groups—including businesses, mayors, county executives, universities, faith groups and investors—that have committed to standing by the Paris Climate Agreement and working to meet its goals.

We Mean Business: Commitment to Reduce Short-Lived Pollutant Emissions

A coalition of companies that agree to include measurement of hydrofluorocarbons (HFCs) in their GHG accounting and reduce emissions of short-lived climate pollutants (SLCPs). We also engage stakeholders in supply chains to reduce SLCPs, promote best practices and showcase successful efforts.

We Mean Business: Adopt a Science-Based Emissions Reduction Target

Companies agree to set a science-based target that is in line with the Science Based Targets initiative’s call-to-action criteria. Our goal of reducing the GHG refrigerant footprint of our products by 50% by 2020 and reducing the GHG emissions from our operations by 35% by 2020 was verified as a science-based goal in 2016 by the Science Based Targets initiative. Our target to be carbon neutral and to reduce emissions from the use phase of our products will be submitted for review as a science-based target this year. If approved, this will be our second science-based goal.



Our Report and Data

We are committed to annual reporting on environmental, social and governance (ESG) topics—a process that helps us measure and manage progress and contributes to ongoing engagement with our internal and external stakeholders. This report proudly documents the achievement of our [2020 sustainability targets](#) and introduces our next-generation [2030 Sustainability Commitments](#).

The subject matter and data included in our 2019 ESG Report covers our combined Industrial and Climate business known in 2019 as “Ingersoll Rand.” In the first quarter of 2020, we separated our Industrial segment, and the remaining HVAC and transport refrigeration assets became Trane Technologies. Going forward, Trane Technologies will issue a separate ESG report.

MATERIALITY

A formal materiality process defines our ESG priorities, shapes our strategy, guides our goal setting and defines our resource allocation and reporting.

We start by reviewing our business priorities and doing a peer analysis. Then, based on both quantitative and qualitative research and feedback from internal and external stakeholders, we identify and capture priority topics in a matrix that provides a snapshot of the ESG challenges and opportunities of highest importance to our business. Our most material ESG topics—the non-financial topics that are of greatest impact to our business and our stakeholders—fall in the upper right-hand quadrant of the materiality matrix.

Our most recent [materiality assessment](#), refreshed in 2018, identifies the most important ESG issues as:

- Energy-efficiency and low-emissions products
- Technology and innovation
- Diversity and inclusion

Additionally, climate change is a cross-cutting issue, which is why it is core to our strategy—read more about [our approach](#).

This report outlines our management approach, data and initiatives for each of our 15 material topics. It is reviewed by our subject matter experts, our Center for Energy Efficiency and Sustainability (CEES) and sustainability leadership teams. Read more about our [materiality assessment](#) process and see a full list of material ESG topics.

REPORTING OUR PROGRESS

Our annual ESG report aligns with leading ESG and sustainability frameworks:

- **Global Reporting Initiative (GRI)** The GRI Standards (core option) are foundational to our reporting process. See our [GRI Content Index](#) for an overview of disclosures on our material ESG topics.
- **Sustainability Accounting Standards Board (SASB)** 2019 marks our second year reporting to the SASB framework. See our [SASB Disclosure](#).
- **Task Force on Climate-related Financial Disclosures (TCFD)** We strongly support the TCFD and have expanded our reporting to align with the Task Force’s voluntary disclosures. See our [TCFD Disclosure](#).

We also respond to **CPD’s Climate Change and Water** questionnaires. ESG information is integrated into our annual financial reporting—a reflection of our business focus on sustainability and commitment to meeting the requirements of the **European Union’s Directive on Non-Financial Disclosures**. See our non-financial statements in our [2019 Annual Report](#).

A NOTE ABOUT OUR DATA

Throughout this report, we define our organizational boundary using the financial control approach and report on Scope 1 and 2 greenhouse gas (GHG) emissions using the GHG Protocol Initiative’s [guidelines](#). In 2014, we completed a corporate-wide review of our Scope 1 and 2 GHG emissions for all owned and leased assets using the Greenhouse Gas Protocol accounting standards. We believe this most accurately reflects the direct impact of our operational footprint, and plan to update the review when we are officially Trane Technologies.

We report data from newly opened and acquired facilities as soon as valid data is available. For recently closed or sold facilities, the data is included for the time period a site was part of the company and to ensure year-over-year comparisons remain consistent. As such events occur, baselines are adjusted to account for these operating footprint changes. As our data collection system continues to mature and improve, the environment data we report improves in accuracy and expands in breadth.

Data is presented in absolute and normalized (intensity) terms. Normalizing environmental and energy data to total revenue provides valuable insights into the level of eco-efficiency across our diversified operations and allows benchmarking against the performance of other industrial companies. Our safety data is normalized by the number of hours worked.

Our EHS and GHG data are assured annually by a third party; the results of our 2019 assurance can be found [here](#).

2020 TARGET

Adhere to global framework for reporting our sustainability progress by responding to annual CDP request
—Achieved

U.N. Sustainable Development Goals (SDGs)

The United Nations Sustainable Development Goals (SDGs) represent the biggest and most complex challenges of our time—challenges that demand innovation, leadership and action. That’s why we set audacious [2030 Sustainability Commitments](#) that push us to go further to solve big sustainability challenges and address issues like climate change and gender equality. We believe in collaboration and call on our industry to join us in creating system-wide changes through sustainable solutions for customers, efficient operations and public policy advocacy that pushes for climate solutions.

The SDGs define big global issues that are most critical to solve. We evaluated which goals we can have the biggest impact on based on our business, expertise and citizenship goals. We are one of the first companies that worked with the Trucost SDG Evaluation Tool to better understand which SDGs overlap with our operations, supply chain and products. The tool provides quantitative insights about which SDGs we can make the biggest impact on and where we have opportunities to improve.

The tool helped us see we can contribute most significantly to:

Climate Action (SDG 13)—Take urgent action to combat climate change and its impact: The global demand for affordable, reliable energy and access to cooling and comfort are increasingly contributing to climate change. We are reducing greenhouse gas (GHG) emissions and increasing energy efficiency in our operations and through our products, as outlined in our [2020 Climate Commitment](#). Through our [2030 Sustainability Commitments](#), we will go even further and reduce our customers’ carbon footprint by 1 gigaton—equivalent to the annual emissions of Italy, France and the United Kingdom combined. To date, we have avoided more than 20 million metric tons of CO₂e from our products compared to the 2013 baseline. Read more about our approach to [environmental sustainability](#).

Affordable Clean Energy (SDG 7)—Ensure access to affordable, reliable, sustainable and modern energy for all: We are implementing energy efficiency measures across our enterprise and meeting more of our energy needs through renewable energy. As part of our [2020 Climate Commitment](#), we invested more than \$500 million by 2020 in product-related research and development to fund long-term GHG reduction.

Gender Equality (SDG 5)—Achieve gender equality and empower all women and girls: We were the first in our industry to enter the Paradigm for Parity Coalition when our CEO signed the pledge in 2017. 23.1% of our leadership positions are now held by women and there are 4 women serving on our Board of Directors. We are working relentlessly to fulfill the pledge and bring gender parity to our corporate leadership structure by 2030. Additionally, through our seven-step strategic sourcing process, we avoid using price as the primary driver for supplier selection. Instead, we consider a range of factors as agreed upon by a cross-functional team, including supplier diversity, quality and risk. We are also working toward our target to spend \$15 billion with women-owned businesses through 2021. Read more about our commitments to diversity and inclusion in our [business](#) and [supply chain](#).

To increase our impact, we aligned our citizenship targets with four of the U.N. Sustainable Development Goals (SDGs)—Climate Action (SDG 13), Quality Education (SDG 4), Zero Hunger (SDG 2) and Sustainable Cities and Communities (SDG 11). Read more about our [2020 Targets, 2030 Sustainability Commitments](#) and approach to [corporate citizenship](#).



Our Planet



Global change starts with the courage to act. The challenges created by record greenhouse gas (GHG) emissions, urbanization and the unsustainable demand for energy and resources are reshaping the world around us and how we operate as a business. So what can we do?

It starts with our team. We have deep expertise and the scale to implement industry-changing innovations. We aren't afraid to be curious and courageous in the face of sustainability challenges that require big ideas and have the enthusiasm to take on the world's climate challenges. From our Board of Directors and senior leadership to our engineers and employee Green Teams, we work as one team dedicated to climate solutions.

Because of the big global need for sustainability innovation, sustainability is core to our growth strategy, product development process, the materials we use and how we manage our resources and supply chain. Over the last six years, we have systemically worked to update design processes to align with total life cycle best management practices. Over this same period, we have refreshed 19.6% of our product portfolio.

Big ideas mean nothing if you don't make them happen, so we make sure we are following through by setting targets. We were one of the first companies to set a goal related to the emissions of our products when we established our global [2020 Climate Commitment](#) in 2014. This report documents the achievement of our 2020 Targets—and introduces our next-generation commitments, which are even bolder.

By [2030](#), we are committed to reducing the carbon footprint of our customers by one gigaton CO₂e—equivalent to the annual emissions of Italy, France and the United Kingdom combined. We'll also design systems for circularity and transform our supply chain and operations to have a restorative impact on the environment, including achieving carbon neutral operations, zero waste to landfill and a 10% absolute reduction in energy consumption.

Climate Change

More than one-quarter of global greenhouse gas (GHG) emissions come from electricity and heat production, according to the Environmental Protection Agency (U.S. EPA)—meaning innovation in our industry can help change the world. As climate innovators and pioneers, we are up to the challenge.

We confront climate change by setting ambitious targets. As part of our 2020 Targets and Climate Commitment, we developed Scope 1 and 2 emissions reduction targets through the [Science Based Targets initiative](#) that align with the level of decarbonization required to keep global temperature increase below two degrees Celsius. We met and surpassed these goals in 2018, two years ahead of schedule.

To date, we have avoided more than 20 million metric tons of CO₂ equivalent (CO₂e) from our products compared to a 2013 baseline. We have also reduced the GHG emissions intensity of our operations by 50% and reduced energy use by 80,228 million British thermal units (BTUs) and electricity consumption by 23,513 megawatt hours (MWh) since 2013.

We're now going even further to confront climate change by setting even bolder goals. Our [2030 Sustainability Commitment](#) is a suite of goals designed to transform our supply chain and operations and bring efficient and sustainable climate solutions to buildings, homes and transportation. These goals include reducing our customer carbon footprint by 1 gigaton (or 1 billion metric tons of CO₂e) and achieving carbon neutrality across our operations.

We have also increased our disclosure of climate-related risks. Last year, we joined a cohort of companies leading climate change action in signing on to support the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#) recommendations. In doing so, we outlined our approach to governance, strategy and risk management as well as our metrics and targets in our second-ever [climate-related disclosure](#). We also started piloting a shadow price on carbon of \$8 a ton to help us prioritize low-carbon investments.

What's our biggest climate challenge? Driving reductions in the footprint of our products during the use phase—which is the largest source of GHG emissions related to our business. That's why we regularly perform climate-related scenario assessments, which help us determine our product strategy with respect to climate drivers, like GHG emissions and energy efficiency. Our assessments align with the timeframe of the Kigali Amendment to phase out the use of hydrofluorocarbons—a commonly used refrigerant with high global warming potential.

Read more about our efforts to reduce GHG emissions and transition to next-generation refrigerants in [public policy advocacy and compliance](#), [greenhouse gas emissions, pollutant emissions and refrigerants](#) and [product emissions](#).

Greenhouse Gas (GHG) Emissions, Pollutant Emissions and Refrigerants

Our 2030 Sustainability Commitment is to achieve carbon neutrality and reduce our customers' carbon footprint by 1 gigaton (or 1 billion metric tons of CO₂e) by 2030.

This builds on our previous commitment to reduce Scope 1 and 2 emissions (on a per unit revenue basis) 35% by 2020 compared to a 2013 baseline. We met and exceeded this goal in 2018, having reduced the absolute greenhouse gas (GHG) emissions associated with our operations by more than 195,225 metric tons of CO₂e—or 36%—since 2013. In addition, total energy efficiency has improved by 27%.

In total, we avoided 1,073,507 metric tons of CO₂e in operational GHG emissions since 2013.

To achieve our goals, we account for operational, product and fuel-related emissions. We design programs, products and initiatives that enable us to reduce emissions and achieve our targets. A third party assures our GHG emissions data from our operations every year, and we performed an internal audit in 2017 to ensure the integrity of our process for collecting product GHG emissions data.

Approximately 36% of our operational Scope 1 and 2 GHG emissions are from electricity use. Refrigerants, an essential component of many of our products, are also a significant source of emissions. These compounds, also called hydrofluorocarbons (HFCs), have higher global warming potential than carbon dioxide and account for approximately 39% of our Scope 1 and 2 emissions. Through refrigerant management and transition over the last six years, we achieved a 50% reduction in operational emissions intensity. Read about how we manage [energy](#). We have also aligned our [public policy advocacy](#) with our ambitions to phase out HFCs and increase energy efficiency.

REDUCING GHGS WITH REFRIGERANTS MANAGEMENT

Small changes add up to big impacts. This year, we made some changes to our refrigerants management that helped to reduced GHG emissions and decrease manufacturing costs from losing refrigerants to the environment. The changes included updating our technical procedures/standard work to define key equipment specifications and outlining administrative control measures. The updates help reduce routine leaks and accidental losses for our facilities that charge and recover refrigerants during manufacturing.

APPROACH

We are becoming more efficient in our operations to optimize our energy use and increase business productivity. Some of our energy efficiency initiatives include optimizing HVAC systems, employee Green Team programs, eliminating leakage in compressed air systems and re-lamping.

We have also started implementing a multifaceted strategy to achieve carbon neutral operations by 2030. Our focus areas include:

- Phasing out of refrigerants with high global warming potential
- Finding ways to reduce our energy use to meet the 10% reduction target
- Investing in renewable energy to meet our 100% target
- Completing electrification and route optimization of our Service Teams fleets
- Revamping our manufacturing systems to be less energy intensive through product design for manufacturing

We will purchase carbon credits to obtain any remaining GHG emission reductions.

GHG EMISSIONS* (UNITS: METRIC TONS CO ₂ E)		2019	2018	2017	2016	2015	2014	2013
Direct CO ₂ e (GHG Scope 1)		343,125	368,797	390,827	411,655	481,061	485,386	543,601
Breakdown of Scope 1 emissions	Emissions from fuel	136,098	131,811	130,528	131,729	133,917	131,376	138,123
	Emissions from refrigerants	212,278	236,986	260,299	279,926	347,144	354,010	405,478
Indirect CO ₂ e (GHG Scope 2) (emissions from electricity)		194,437	197,783	188,060	206,211	228,416	233,583	257,602
Total (Scope 1 and 2 emissions)		537,562	566,580	578,887	617,866	709,476	718,969	801,203
Normalized GHG emissions (metric tons/USD)		32.65	36.16	40.77	45.74	53.34	55.77	64.87
Reduction of absolute GHG emissions (ton CO ₂ e compared to 2013 baseline)		177,034						
Reduction of GHG emissions intensity (2013 baseline)		50%						

SCOPE 3 GHG EMISSIONS

Driving down emissions that occur in our [value chain](#) is one of our biggest sustainability challenges and opportunities. That’s why we were one of the first companies to set a goal related to the emissions of our products—a goal that was also approved by the Science Based Targets initiative.

2019 MATERIAL SCOPE 3 EMISSIONS (UNITS: METRIC TONS CO ₂ E)	
Product use	238,000,000
Business travel (assured)	30,340
Upstream leased assets (estimate)	67,000
Upstream and downstream distribution and transportation (estimate)	135,628

Other Scope 3 emissions categories, such as waste generated in operations, are not material to our business. Read more in our annual CDP Climate Change questionnaire.

HFC ALTERNATIVES

To reduce product-related GHG emissions, we are identifying HFC alternatives and offering our customers more sustainable products. We believe we can speed up the transition to products that have a smaller environmental impact without compromising product quality.

Over the last six years, we have avoided more than 20 million metric tons of CO₂e from our products, equal to the GHG emissions from the energy used in 8.4 million homes for one year. By 2030, our goal is to reduce our products’ carbon footprint by 50 million metric tons, which is equal to the energy used in 5.9 million homes for one year. We have also invested more than \$500 million in product-related research and development to fund the long-term reduction of GHG emissions.

Read more about our [2030 Sustainability Commitments](#) and approach to [energy-efficient and low-emissions products](#) and [public policy advocacy](#).

GREENHOUSE GAS EMISSIONS, POLLUTANT EMISSIONS AND REFRIGERANTS

🕒 2020 TARGETS

Our [2020 Climate Commitment](#) was set—and approved by the Science Based Targets initiative—to deliver the GHG reductions required to keep global warming to well below two degrees Celsius. It included three pillars:

Reduce Scope 1 and 2 emissions by 35%
—[Achieved](#)

Reduce the GHG refrigerant footprint of our products by 50%
—[Achieved](#)

Invest \$500 million in product-related research and development to fund long-term GHG reduction
—[Achieved](#)

🚩 2030 GOALS

Reduce customer carbon footprint by 1 gigaton (or 1 billion metric tons of CO₂e) and achieve carbon neutral operations

🔍 OVERSIGHT

Our chairman and CEO announced and signed our [2020 Climate Commitment](#) at the United Nations Climate Summit in 2014 and announced our 2030 commitments at the World Environment Center’s Gold Medal Presentation Ceremony in May 2019.

📄 APPROACH

We account for operational, product and fuel-related emissions. We design programs, products and initiatives to reduce emissions and achieve our targets. Our 2020 goals to reduce Scope 1 and 2 emissions, as well as the GHG refrigerant footprint of our products, were verified as a science based goal in 2016 by the Science Based Target initiative. A third party assures GHG emissions data from our operations every year, and we performed an internal audit in 2017 of the product GHG emissions collection process to ensure the integrity of our data.

Read more about our [2020 Sustainability Commitment](#).

FUEL-RELATED EMISSIONS

In 2019, we increased the fuel efficiency of our fleet by 5%, and saved approximately 3,300 metric tons of CO₂e, which is equivalent to the energy used in 1,396 homes for one year.

Through the process of converting to a hybrid fleet, our fleet fuel efficiency improved from 15.89 to 16.73 miles per gallon in 2019. We also use new vehicles that have better fuel economy and engine performance compared to large displacement vehicles.

ECOWISE™ PORTFOLIO

Our EcoWise portfolio reduces the GHG emissions footprint of our refrigerant-bearing products and offers our customers more sustainable choices. EcoWise products are specifically designed for next-generation, low global warming potential (GWP) refrigerants without sacrificing energy efficiency, safety and operating performance.

NOX AND SOX EMISSIONS* (UNITS: METRIC TONS)	2019	2018	2017	2016	2015	2014	2013
NOx	121.47	117.25	115.90	116.86	117.23	114.68	116.41
SOx	7.56	7.79	7.52	7.04	7.21	6.24	7.52

VOLATILE ORGANIC COMPOUND (VOC) AIR EMISSIONS* (UNITS: METRIC TONS)	2019	2018	2017	2016	2015	2014	2013
Direct VOC emissions	301.74	284.66	289.24	289.23	285.93	258.63	313.16

REFRIGERANTS DATA*	2019	2018	2017	2016	2015	2014	2013
Refrigerant emissions (Refrigerant losses in pounds of refrigerant)	293,246	324,678	364,219	373,229	437,492	425,414	495,059
Normalized GHG emissions (metric tons CO ₂ e/million USD)	12.79	15.13	18.33	20.72	26.10	27.46	32.83

* Slight adjustments made to previously reported data for 2013–2018 to reflect changes in our operational footprint.

Energy

It took approximately 414,655 megawatt hours (MWh) to power our manufacturing plants worldwide in 2019. That means we used 23,513 MWh less electricity in 2019 than we did in 2013—the difference is equivalent to the annual greenhouse gas (GHG) emissions from driving more than 3,550 passenger vehicles. Our approach is to improve operational efficiency to optimize our energy use and increase business productivity and reduce emissions through strategic transition to renewable energy sources.

In 2019, we achieved a 5% reduction in energy intensity as a direct result of conservation and energy efficiency initiatives. We achieved significant renewable energy generation through a virtual purchase power agreement (VPPA), on-site renewables and renewable energy certificates.

We pursue certification standards at several of our sites around the world. At the end of 2019, we had 5 ISO 50001-certified sites, 4 LEED-certified sites and 3 GreenGlobe-certified sites.

ENERGY EFFICIENCY

We must be more energy efficient to reduce GHG emissions. That’s why we committed to reduce our absolute energy consumption 10% by 2030. We worked hard to exceed our 2020 target of a 10% increase in energy efficiency, and we believe our [new goal](#) to reduce absolute energy consumption is part of what it means to keep pushing further.

Our total energy efficiency has improved by 27% since 2013. Important energy efficiency initiatives include:

- Signing onto the Alliance to Save Energy’s [Three Percent Club](#), which requires Trane and Thermo King segments to improve energy efficiency by 3% annually.
- Updating elements of our Business Operating Systems to further integrate energy efficiency into manufacturing and services delivery standard work. These important updates are from the Engineering and Operational Excellence teams.
- Using the expertise of the Trane Energy Services team to assess and drive energy efficiency improvements across our operations.
- Implementing other important initiatives, including optimizing HVAC systems; employee Green Team programs; eliminating leakage in compressed air systems; and re-lamping.



RENEWABLE ENERGY

Strategically transitioning to renewable resources is core to making our operations and supply chain carbon neutral by 2030. As of 2019, we have four investments in on- and off-site renewable energy:

PROJECT	LOCATION	TYPE	ESTIMATED ANNUAL PRODUCTION	STATUS	REC TREATMENT
Trenton Solar Project	Trenton, New Jersey	On-Site Solar	1,990 kW	Online	REC Swap*
Columbia Solar Project	Columbia, South Carolina	On-Site Solar PV	1.35 MW direct current	Online	REC Swap*
Taicang Solar Project	Taicang, China	On-Site Solar	2,800 kW	Online	Company owns renewable energy attributes from 100% of generation
Seymour Hall Wind Farm VPPA	Northern Texas	Wind virtual purchase power agreement (VPPA)	110,000 MWh	Online	Company owns and retires RECs

* REC Swap: The Renewable Energy Credits (RECs) from this project are sold to the utility to meet RPS requirements. We purchased replacement RECs from other renewable energy facilities in the U.S.

In Trenton and Columbia, we have agreements to sell the renewable energy attributes we generate to the local utility. To continue working toward our operational goals, we replace what is sold with Renewable Energy Credits (RECs)—a certificate corresponding to the environmental attributes of energy produced from renewable sources—in the matching amount of the renewable electricity we generated. We generate solar energy in China, where we use it in our operations. We also sell some of it to the grid during off-peak times. In total, the solar installations address about 15% of the electricity load at these three manufacturing sites.

Our VPPA in Texas started generating electricity in June 2019, helping reduce our U.S. Scope 2 GHG emissions from electricity use by about 30%. This is the equivalent of taking 15,000 cars off the road.

Between generated renewable electricity and renewable electricity purchased through our VPPA, our investments resulted in a reduction of 17% in our market-based Scope 2 GHG emissions in 2019. Read more about our approach to managing [GHG emissions, pollutant emissions and refrigerants](#).

We believe large-scale investments in renewables are vital to shift to a clean-energy economy. Direct investment in on-site renewable energy has several advantages, depending on where you are in the world. It can provide the clearest claim to the renewables and have a direct impact on our operations. And, in parts of the world with uncertain electricity prices and availability, on-site renewable energy ensures greater operational continuity.

ABSOLUTE ENERGY USE* (UNITS: BILLION KJ)	2019	2018	2017	2016	2015	2014	2013
Direct (fuel use)	2,111	2,164	2,132	2,148	2,175	2,158	2,259
Indirect (electricity)	1,437	1,532	1,497	1,520	1,550	1,575	1,546
Total	3,548	3,696	3,629	3,669	3,725	3,733	3,805
Normalized energy use (billion KJ/million USD)	0.224	0.236	0.256	0.272	0.280	0.290	0.308
Natural gas	899	909	876	878	936	997	941
Gasoline	969	893	916	946	902	843	957
Diesel	262	278	264	252	247	240	298
Propane	69	63	59	61	73	78	63
Aviation fuel	18	15.7	16.1	11	16	0	0
Renewable energy (see full Renewable Energy data below)	9	5	0	0	0	0	0
Total direct energy	2,228	2,164	2,132	2,148	2,175	2,158	2,259

* Slight adjustments made to previously reported data for 2013–2018 to reflect changes in our operational footprint.

2019 RENEWABLE ENERGY DATA (UNITS: BILLION KJ)	
Renewable energy generated	10
Renewable energy generated and sold to grid	1
Renewable energy generated and used	9
Renewable energy purchased	235

ENERGY

🕒 2020 TARGETS

Increase energy efficiency in owned facilities by 10%
—Achieved

Increase fuel efficiency in our fleet
—Achieved

Evaluating all long-term building leases more than 100,000 sq. ft. against environmental and energy criteria
—Achieved

🚩 2030 GOAL

Achieve 10% absolute reduction in energy consumption

🔍 OVERSIGHT

Responsibility for managing energy extends across multiple work groups and functions that are governed by the use of Standard Work as part of our Business Operating System.

➡️ APPROACH

We are increasing our operational efficiency to increase business productivity. Some of our energy efficiency initiatives include optimizing HVAC systems; employee Green Team programs; eliminating leakage in compressed air systems; and re-lamping.

MOVING TOWARD CARBON NEUTRALITY

Carbon neutrality means an operation has zero net GHG emissions. It requires hard assessment of the business and an understanding of what needs to happen to reduce emissions and offset emissions in the most efficient way possible.

This year, we started taking steps to turn Thermo King’s Navigate Line in Galway, Ireland, carbon neutral. We teamed up with the Department of Mechanical and Industrial Engineering to map the carbon footprint of our existing production line. The assessment determined that we can get there through a combination of low-energy consumption assembly equipment, on-site solar electricity generation, bio-based liquefied petroleum gas and diesel, and carbon offsets for the balance of GHG emissions. We look forward to implementing these initiatives to measure and assess whether they are working to get us to carbon neutral. This is just one part of how we’re acting on climate challenges.

DOUBLING DOWN ON EFFICIENCY

We’re about high-performance sustainability. Focusing on energy efficiency drives us toward solutions that are better for the environment and better for business. It’s not just about repairing and replacing old equipment to save money. It’s about designing smarter systems that support renewable energy integration, reduce strains on the grid and add value for our customers.

We made our first formal commitment to improve energy efficiency in 2009. We hit that target early and have since continued driving forward by relentlessly setting and achieving bolder targets. That’s how we dropped our energy intensity by more than 25% and why we are honored that the [Alliance to Save Energy](#) recognized us as the [2019 Star of Doubling Down on Energy Efficiency](#). As we work toward our boldest goals yet, our 2030 Sustainability Commitments, energy efficiency will continue playing a starring role in our innovations, technology solutions and operational initiatives.

Energy-Efficient and Low-Emission Products

We’re in the business of sustainable solutions—which means we are always innovating to push what’s possible in climate control and energy efficiency.

For example, HVAC and lighting systems are a great opportunity to reduce energy consumption in commercial, industrial and residential buildings—which account for nearly half of global energy consumption. Today, approximately 25% of our revenue is from products and services that contribute to the clean energy transition. We ranked #66 on Corporate Knights Clean 200 in 2019. And one of our 2030 commitments is to reduce emissions from our products by 1 gigaton.

This year, we worked with one of our customers, Honeywell, to provide an efficient, cost-effective solution for cooling the world’s largest undersea tunnel, the Channel Tunnel. The system saved enough electricity to power 1,000 households after just one season of operation.

ENERGY-EFFICIENT AND LOW-EMISSION PRODUCTS

🕒 2020 TARGET

Establish portfolios that meet world-class environmental criteria for energy consumption and emissions from the use of the product
—Achieved

🚩 2030 GOAL

Reduce customer carbon footprint by 1 gigaton (or 1 billion metric tons of CO₂e)

🔍 OVERSIGHT

Our senior vice president and chief technology officer oversee the product development process, including engineering, innovation, product development and growth strategy.

➡️ APPROACH

Several tools help us track and manage the energy efficiency of our products. We have a product GHG calculator to track our product-related emissions, including emissions generated from electricity use.

Product Life Cycle and Materials

We must reduce the impacts and enhance the reliability of our products and services at all stages of their life—from design and manufacturing to use and retirement. Many of our products are built to operate for 15 to 20 years. Designing them to meet current and future regulations adds value for our customers today while helping them prepare for the more stringent regulatory environments to come.

FROM WOOD TO STEEL: REUSABLE PRODUCT SHIPPING

One way we’ve made changes in transport is by using a reusable and returnable steel crate to transport products from our Thermo King’s Hastings plant to dealers around the country. We use these crates in our small and large trucks and have eliminated 756 tons of hardwood crating materials from landfills annually. This is the equivalent of saving 16 acres of forest each year—all because we went from wood crates to reusable, returnable steel crates.

One of our 2020 Targets was to perform a life cycle assessment (LCA) on 100% of new products. By working on this target, we discovered that the greatest opportunity to reduce carbon impacts from our products is concentrated in the use phase. Because continued assessments were not providing additional insights, we refocused this target, having performed LCAs on nearly 30% of new products and several existing product revisions. We are now refocusing through our 2030 Sustainability Commitments with a new goal to design systems for circularity with particular focus in areas that can have material impact on raw material selection, product use phase impacts and end-of-life considerations. In addition to keeping our systems in the field for as long as possible, we want to rethink services to help our customers meet their own sustainability challenges.

Our process, formerly known as the Ingersoll Rand Product Development Process (IRPDP), standardizes life cycle considerations in product

development to ensure we are meeting customer needs, assessing risk, embedding sustainability and developing intellectual property. IRPDP modules can be applied at various product development stages. In 2019, IRPDP generated or improved more than 252 product development projects. In phase 2 of IRPDP, the product team identifies environmental, health and safety (EHS) risks or sustainability considerations in complying with related codes that affect the product.

MATERIALS

Materials selection and management is a core tenant of a circular economy perspective. We manufacture many of our products’ components from a variety of materials including steel, copper and aluminum. We work closely with suppliers to ensure they share our commitment to sustainability, including reducing packaging, shipping costs and related emissions. Read more about our commitment to [supply chain transparency](#). For more information about our materials management strategy, refer to our [Form 10-K](#).

END OF LIFE: PRODUCT TAKE-BACK AND RECYCLABILITY

Our product development process—the IRPDP—accounts for all aspects of product design, including materials manufacturing, the use phase and end-of-use considerations. This approach allows us to identify and reduce environmental impacts through packaging, recycling and manufacturing improvements. Through the IRPDP, product teams evaluate and consider the use of recycled content in new product design. We have also developed specific end-of-use manuals for multiple products and many of our businesses have materials take-back programs. For example, Thermo King deploys independent dealers to take back refrigeration units for resale in secondary markets.

PACKAGING

We are committed to eliminating packaging waste through considerations for transport, package material and waste disposal concerns.

Our packaging engineers are working on innovative and efficient solutions for packaging finished goods and parts. We have a returnable packaging program at 14 North American manufacturing sites to reduce more than 2,500 pounds of solid waste produced from packaging annually. To reduce waste in our supply chain, we developed [packaging guidelines](#) for our suppliers that aim to decrease use of hazardous substances, reduce waste and emissions and increase reuse and recycling of materials. Preferred packaging systems are returnable, reusable or recyclable.

MATERIALS DATA
Savings in emissions from returnable packaging projects (annually) of more than 1,000 tons of CO ₂ e
Reduction in solid waste from returnable packaging projects (annually) of more than 1,000 tons

PRODUCT LIFE CYCLE AND MATERIALS

2020 TARGETS

Increase reliability and durability by improving quality time to solution

Perform life cycle assessment on 100% of new products

100% of New Product Development (NPD) projects in IRPDP have end-of-use manual created

2030 GOAL

Design systems for circulatory

OVERSIGHT

Our senior vice president and chief technology officer oversee the product development process, including engineering, innovation, product development and growth strategy.

APPROACH

Our Product Footprint Study tool—a streamlined life cycle assessment—addresses material use and allows for a comparison between design scenarios. By incorporating the life cycle considerations during the design phase, we identify and implement other environmental impact reductions that include packaging, recycling and manufacturing improvements.

Water

Water is a critical resource in our operations. Our 2020 water management target—a target we far exceeded—was to reduce water used at sites located in water-stressed areas by 25%. Since 2013, we reduced water use at these sites by 39%.

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Reduce water used at sites located in water-stressed areas by 25%
—Achieved

➤ 2030 GOAL

Become net positive water in water use

Our new commitment is to be net positive in water use by 2030—producing more water than we use. That means improving the quality of watersheds that provide drinking water to millions of people in the water-stressed locations where we have manufacturing operations. We are in the initial stages of strengthening relationships with peer companies and nongovernmental organizations to develop the mechanisms, governance, partnerships and portfolio solutions to drive restorative impacts for water conditions at water-stressed locations.

Water quality for intake and discharge is important at all our sites. We track our water use at each facility monthly through our Gensuite environment management system. The WaterWatch™ module tracks

effluent discharge data and trends against regulatory limitations and reporting requirements. For each effluent limit, we define an internal action threshold to recognize changing conditions and adjust pretreatment systems before a regulatory discharge limit is exceeded. We have developed and implemented operating standards and procedures to drive toward zero wastewater exceedances year-over-year.

This approach resulted in a decrease of 3% in our overall water use in 2019 compared to 2018. At sites located in water-stressed regions, we reduced 2019 water use by 5%. Our total freshwater consumption was 3.13 million cubic meters.

ANALYZING WATER-STRESSED REGIONS

We periodically conduct a risk assessment using the World Resources Institute (WRI) Aqueduct™ tool and designate sites that score medium-high or high for water stress. We consider physical risk quality and quantity as well as regulatory and reputational risk. Seven of our sites—which account for 7% of our total water use—are in areas of medium-high to high water stress.

WATER DATA*	2019	2018	2017	2016	2015	2014	2013
Water Use (million cubic meters)	3.13	3.22	3.40	3.31	4.20	4.04	3.74
Normalized water use (cubic meters/million USD)	188	206	239	245	316	313	303
Wastewater permit exceedances	4	0	2	4	8	2	10

* Slight adjustments made to previously reported data for 2013–2018 to reflect changes in our operational footprint.

Waste

Over the past six years, we reduced our non-hazardous waste to landfill by 31%—achieving our 2020 target of 30%—and reduced the amount of hazardous waste generated by 3%. Building on our success of achieving zero waste to landfill at 27 of our manufacturing sites in 2019, we are committing to zero waste to landfill across the company by 2030.

As part of our waste management strategy, we incorporate end-of-life considerations, such as the recyclability of materials used, in product design and development. We also work with our manufacturing sites to reuse and recycle waste, which conserves natural resources, reduces pollution and creates cost-saving opportunities for our business.

Packaging materials is the primary waste our manufacturing facilities send to landfill. To achieve zero waste to landfill, we need to continue increasing our returnable packaging program and evaluate options to participate in returnable packaging cooperatives, in addition to expanding our network of global recycling partners. In our supply chain, we are assessing corporate Procurement Standards to restrict once-used packaging for our preferred suppliers.

Although our recycling rate decreased slightly by 0.7% compared to 2018, we recycled 4 pounds for every pound of non-hazardous waste sent to landfill. Our total solid waste disposed was 13,996 metric tons.

We also joined a project led by the United States Business Council for Sustainable Development (U.S. BCSD), which aims to develop materials marketplaces using industrial ecology to help business exchange and source materials part of their industrial waste streams. Some of our manufacturing sights are participating in U.S. BCSD state marketplaces. This work contributes to six of the Sustainable Development Goals (SDGs):

- Decent Work and Economic Growth (SDG 8)
- Industry, Innovation and Infrastructure (SDG 9)
- Sustainable Cities and Communities (SDG 11)
- Responsible Consumption and Production (SDG 12)
- Climate Action (SDG 13)
- Partnerships for the Goals (SDG 17)

Read more about our approach to [product life cycle and materials management](#).

THINKING DIFFERENTLY TO INCREASE RECYCLING

Tackling tough sustainability challenges is a priority for us. But we can’t do it alone. That’s why it’s so important to collaborate with our great partners to make changes. We established new partnerships to increase our recycling; our partners helped us get Trane sites in Tyler, Texas, and Vidalia, Georgia, ready to begin 2020 with new waste segregation and bulking processes—meaning plastics and cardboard will be successfully recycled by third-party commodity users. At our corporate campus in Davidson, North Carolina, we implemented an enhanced single-stream recycling program. It captures all non-hazardous waste generated in the offices and cafeterias and converts it to engineered fuel used by cement kilns and other high-energy fuel-fired industries.

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Reduce non-hazardous waste to landfill by 30%
—Achieved

Reduce hazardous waste by 20%

➤ 2030 GOAL

Deliver zero waste to landfill

WASTE DATA* (UNITS: METRIC TONS)	2019	2018	2017	2016	2015	2014	2013
Total hazardous waste generated	1,507	1,637	1,346	1,189	1,257	1,510	1,133
Normalized hazardous waste (metric tons/million USD)	0.089	0.104	0.095	0.088	0.094	0.117	0.092
Total non-hazardous waste generated	12,521	11,592	9,418	9,616	9,841	10,310	12,839
Normalized non-hazardous waste (metric tons/million USD)	0.754	0.740	0.663	0.712	0.740	0.800	1.040
Non-hazardous waste to landfill	8,044	7,014	7,113	7,667	8,259	8,927	8,620
Normalized non-hazardous waste to landfill (metric tons/million USD)	0.485	0.448	0.501	0.568	0.621	0.692	0.698
Non-hazardous waste recycled	32,128	32,352	28,326	26,943	25,132	26,080	23,362
Normalized non-hazardous waste recycled (metric tons/million USD)	1.936	2.065	1.995	1.994	1.889	2.023	1.892

* Slight adjustments made to previously reported data for 2013–2018 to reflect changes in our operational footprint.

Our People and Citizenship



Social sustainability means a relentless focus on always improving and leading by example to be a better employer and neighbor. It means investing to improve quality of life through workforce and community commitments. And it means we operate with purpose to solve some of the biggest challenges in our communities.

This year marks a critical transition from our 2020 Targets to our 2030 Sustainability Commitments. We were able to meet or exceed our 2020 Targets by: improving accessibility to wellness programs for our employees; creating diverse slates of job candidates; expanding competency in energy and resource efficiency; inspiring STEM education; addressing nutrition and food waste reduction and supporting housing and shelter needs. We also achieved measurable progress through strategic philanthropy and a culture of volunteerism to help people and communities create a more sustainable world.

Looking forward, we will accomplish our 2030 Sustainability Commitments by applying the best minds and best technology to innovate and respond to the impacts of our changing world.

Our focus is creating opportunity for all by improving workforce diversity and setting bold goals for the future, including achieving gender parity in leadership roles.

The progress and data reported in our 2019 ESG Report, along with our [2030 Sustainability Commitments](#), are our way of showing how we are challenging ourselves to help solve these global challenges and doing the right thing for our communities, the environment and our business in the process.

Our Employees

Our people are the cornerstone of our winning culture and the foundation of our company. Workforce dynamics such as aging populations, shifting demographics and digital connectedness continue to evolve, and are reshaping the global workforce. At the same time, other forces, including urbanization, resource constraints and climate change, impact not only our people, but communities around the world.

We have 47,178 employees and 3,164 contractors worldwide. We respect and value diverse cultures, backgrounds and perspectives. Our goal is to create a dynamic, progressive environment where all employees are engaged in our vision and empowered to do the right thing—and where our people can continue to learn and thrive in their careers with us.

Read more about our commitment to creating a winning [company culture](#) and engaging our [employees](#).

OUR GLOBAL WORKFORCE

LOCATION	EMPLOYEE TYPE	FEMALE		MALE		GRAND TOTAL
Asia Pacific	Hourly	12.7%	260	87.3%	1,781	2,041
	Salaried	26.5%	1,517	73.5%	4,198	5,715
EMEA	Hourly	5.3%	156	94.7%	2,765	2,921
	Salaried	29.3%	1,056	70.7%	2,545	3,601

OUR GLOBAL WORKFORCE Continued

LOCATION	EMPLOYEE TYPE	FEMALE		MALE		GRAND TOTAL
India	Hourly	0.0%	0	100.0%	275	275
	Salaried	14.9%	259	85.1%	1,479	1,738
Latin America	Hourly	15.2%	170	84.8%	952	1,122
	Salaried	32.2%	406	67.8%	853	1,259
North America	Exempt hourly	47.3%	1,348	52.7%	1,502	2,850
	Hourly	25.0%	3,813	74.9%	11,410	15,223
	Salaried	23.8%	2,488	76.2%	7,945	10,433
	All salaried (exempt hourly + salaried)	28.9%	3,836	71.1%	9,447	13,283
Global Workforce	All employees	24.3%	11,475	75.7%	35,703	47,178

Human Rights

Social sustainability starts by ensuring our people and suppliers share our values and adhere to our standards of human rights.

Our commitment means relentlessly maintaining a diverse, inclusive and safe work environment and supply chain. Everywhere we operate, we comply with laws and regulations and promote human rights principles that are shaped by international organizations, such as the International Labor Organization and United Nations. Our [Global Human Rights Policy](#) prohibits child and forced labor, discrimination and harassment in the workplace, and addresses freedom of association, work environment standards, compensation and employee privacy.

Standards for working conditions and human rights are also advanced through our [Code of Conduct](#) and [Business Partner Code of Conduct](#). Through our Modern Slavery and Human Trafficking Statement, we committed to ensure human trafficking and forced labor are not taking place in our supply chain or business. The standards outlined in our policy and statement are fundamental to how we do business in accordance with our sustainability vision and core values.

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Maintain and update a Global Human Rights Policy

—Achieved

IMPLEMENTING AND PROMOTING OUR POLICY

We make our policy available to all employees and promote it through our [Code of Conduct](#). In 2018, we implemented a full training course on anti-human trafficking. Salaried employees in roles such as Legal, Human Resources and Global Integrated Supply Chain were assigned relevant courses based on function and associated risks. Among the selected groups, we conducted approximately 1,440 hours of training on anti-human trafficking in 2019.

Beyond our operations, we communicate our standards through our [Business Partner Code of Conduct](#) (BPCoC). 100% of new suppliers agree to uphold our expectations as part of our standard purchase agreement, including our terms on human rights and labor practices.

This year, we formalized our process for on-site assessments of our supplier ESG practices, including human rights. We also established a Global Procurement Sustainability Council to work with suppliers on improving conditions and addressing noncompliances. Read more about our supply chain management, [BPCoC](#) and on-site assessments in [supply chain transparency and performance](#).

GRIEVANCE MECHANISMS

As outlined in our [Code of Conduct](#), we encourage all employees who believe our policy has been violated to report their concerns through our [Ethics HelpLine](#); we do not tolerate retaliatory actions. External stakeholders, including business partners, may also report any known or suspected violations through the [Ethics HelpLine](#). All reports are investigated, and actions are taken to ensure compliance.

ANTI-HARASSMENT AND NON-DISCRIMINATION

As part of our human rights policy, we do not allow any form of discrimination, and we expect the same from our business partners. This standard is ever more important as shifting demographics reshape the global workforce.

To help foster an inclusive workplace, we train 100% of our salaried employees worldwide on anti-harassment annually. Additionally, we make our anti-harassment policy accessible for all our employees—our U.S. Equal Employment Opportunity Policy, Policy Prohibiting Harassment and Harassment or Discrimination Policy and Procedures are available to our U.S.-based employees through our Intranet portal.

Read more about our [company culture](#) and commitment to workforce [diversity and inclusion](#).

ANTI-HARASSMENT DATA	2019		2018		2017	
	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
U.S. salaried employees trained on anti-harassment	100%	100%	100%	100%	100%	100%
Employees able to access anti-harassment policy	100%	100%	100%	100%	100%	100%

Company Culture

Our values—integrity, respect, teamwork, innovation and courage—continue to drive our winning culture that empowers people to be curious and courageous in the face of big challenges. Our success is grounded in not just what we do, but how we do it. Engaged employees—who are energized and passionate about what they do—are critical to profitable growth and execution excellence.

As megatrends in workforce dynamics such as digital connectedness reshape the structure and meaning of work, it is more important than ever to be an employer of choice. We believe employees who are engaged, empowered and supported to be their best are better able to deliver for our customers and our company. That’s why we aspire to maintain world-class engagement metrics and provide wellness offerings to 100% of our global population as part of our [2030 Sustainability Commitments](#).

We were able to maintain a world-class employee engagement score in 2019, a year which brought uncertainty for many employees as we evolved from Ingersoll Rand to Trane Technologies. We did this by never wavering from our drive to keep employees safe and investment in their success, which held our employee engagement score steady and at top-tier levels in our industry. Across our enterprise, we create a safety-focused, zero injury and incident philosophy that is a top priority for all. Additionally, at all levels of the company, we offer learning solutions that foster collaboration, innovation and achievement. Read more about our approach to [occupational health and safety](#) and [training and development](#).

Key Metrics from Employee Engagement Survey

TOPIC	SURVEY QUESTION	Score (Average)
Ethics	Leaders at this company are committed to ethical business practices	81
Well-being	The company supports my health and well-being	82
Sense of belonging	I feel a sense of belonging at this company	76

We offer competitive benefits and programs that support employees in both their professional and personal lives. Health Progress, our well-being program, offers employees and their spouses enrolled in our medical plan the opportunity to participate in a broad variety of wellness activities to earn significant financial rewards. The program includes physical activity, health coaching and fitness reimbursement.

COMPANY CULTURE

🕒 2020 TARGETS

- Retain 95% of key talent
—**Achieved**
- Provide accessibility to wellness programs to 75% of our employee base
—**Achieved**
- Achieve employee engagement rate of 80%

➤ 2030 GOALS

Maintain world-class engagement metrics and provide wellness offerings for full global population

🔍 OVERSIGHT

Our Benefits strategy and design are governed by the Benefits Design Committee (BDC) under authority delegated by the Board of Directors. The BDC comprises three Executive Leadership Team members and is chaired by the senior vice president, Human Resources, Communications and Corporate Affairs.

➡ APPROACH

We offer comprehensive benefits packages for full-time employees around the world and track our employee engagement score through our annual employee survey.

Our comprehensive benefits packages to full-time employees includes health coverage (medical, dental and vision), life insurance, disability insurance, employee savings program (401K) and employee assistance program (EAP). Additionally, we have a parental leave policy, provide adoption assistance and have a tuition assistance reimbursement program. Many of these benefits are also offered to our part-time employees who work between 20–35 hours. For those who work less than 20 hours, we offer an EAP, retirement benefits and an employee purchase program. Read more about our [benefits program](#).

As a result of this focus on a winning culture, our key talent retention rate in 2019 was 96.1%, up from 95.6% in 2018 and exceeding our 2020 target of 95%. This takes into account our voluntary turnover rate of 10.0% and total turnover rate of 14.5%.

PARENTAL LEAVE DATA (U.S.)*	FEMALE	MALE
Employees who were entitled to parental leave	4,709	13,725
Employees who took parental leave	130	312
Employees who returned to work	124	306
Employees who returned to work and were still employed after 12 months	106	277
Return to work rate	95%	98%
Retention rate	85%	91%

* Parental leave benefits vary by location in accordance with local legal requirements. Data in table is for U.S. locations.

IMPROVING THE WORKPLACE FOR WORKING MOMS

When Kristin Myers returned to work in our Davidson, North Carolina office after maternity leave, she was able to find a private place to pump her breast milk. But when traveling to other company facilities, she found accommodations lacking. “Pumping is so stressful, and these locations didn’t make it any easier,” Kristin said. “It’s hard enough for moms to be away from their new babies; I knew I needed to do something to help other moms.”

Kristin worked with Alli Cromartie, a global Health Progress leader, to develop a guide to implement mother’s rooms throughout North America. As a result, some locations have already created a mother’s room, and others will be ready by the end of 2019 or in early 2020. We now also reimburse the cost of shipping breast milk back home during business travel. This is a great example of how great employee’s ideas drive change and improvement.

Diversity and Inclusion

We’re building a culture that is inclusive, respectful and driven to provide opportunity for all. Diverse teams are more innovative and collaborative, better at solving problems and better suited to push what’s possible.

At the end of 2019, our workforce was 24.3% female and 23.1% of leadership positions were held by women. On our Board of Directors, 4 out of the 12 members are women. Through our [2030 Sustainability Commitments](#), we aim to achieve gender parity in leadership and workforce diversity reflective of our communities. We are proud to set such aspirations that are particularly difficult to achieve in the manufacturing sector. We know it will take exponential change, not just incremental growth, to reach our goals. With a strong body of internal champions, a broad range of supportive initiatives, and a keen focus from leaders with shared goals, we welcome the challenge. Read more about [our employees](#) and [workplace diversity](#).

2019 GENDER DIVERSITY DATA	FEMALE	MALE
Governance body	33.3%	66.7%
Leadership positions	23.1%	76.9%
Workforce	24.3%	75.7%

We launched and progressed several programs in 2019 as a platform to reach our [2030 Sustainability Commitments](#). These include:

Black Leader Forum—Brought together more than 60 company leaders for a two-day intensive event focused on career development, executive engagement and community building to support our strategic intent to advance black leaders.

Bridging Connections—Facilitated employee discussions dedicated to providing open and safe spaces for employees to address critical, often contentious issues related to race, gender, ethnicity, mental illness, the multigenerational workforce and more. In 2019, 3,141 employees participated in the program.

Employee Resource Group (ERG) Leaders’ Summit 2019—In August, we hosted more than 140 people from 25 Charlotte-area companies for a day-long conversation and workshop addressing the need for bold, inclusive conversations and equipping employee resource group leaders to further those discussions. The rich idea exchange among leaders in the space allowed companies to share their wins and gain insight into new best practices.

Relaunch—A new program helping qualified engineers who have stepped away from their careers, re-enter the workspace, netted eight extremely qualified new hires in four cities in the U.S. and India.

The Women’s Leadership Program (WLP)—Launched in 2012, the program has since graduated nearly 200 women in North America, EMEA and Latin America. This experiential leadership program challenges participants to solve business problems through coursework and teamwork, and it pairs each participant with a mentor. The success of WLP led to the launch of two additional career development programs for women in 2019.

Women in Action—Offers career development for three distinct populations of women leaders in the company: senior, mid-level and emerging leaders. This program prompts women to invest one hour per month in their own development by using online, high-impact training assets that include videos, book summaries, activities and reflective thinking exercises, all aimed at developing specific competencies.

Women on the Rise—Empowers, connects and supports emerging women leaders via a one-week in-person session, as well as virtual learning and mentoring.

Together, our Women in Action and Women on the Rise programs graduated 220 participants in 2019.

EMPLOYEE RESOURCE GROUPS
AND INCLUSION NETWORKS

We have eight employee resource groups (ERGs) company-wide, which reflect the diversity of our workforce. Our ERGs include the following:

- Women's Employee Network (WEN)
- Black Employee Network (BEN)
- Veteran's Employee Resource Group (VERG)
- Asian Employee Resource Group (AERG)
- Global Organization of Latinos (GOL)
- Disability Employee Resource Group (VisAbility)
- LGBTQ+A Employee Resource Group (Pride)
- InterGenerational Employee Resource Group (iGEN)

Each of these groups has an enterprise steering committee and local chapters across the U.S., and the Women's Employee Network is active around the globe. Collectively, our ERGs created 40,000+ touchpoints for employees in 2019 with career development programs, talent recruiting efforts, awareness and education events and charitable and community outreach activities.

In addition to ERGs, we've launched Inclusion Networks in more than a dozen manufacturing plants and sales offices. These local diversity committees work together to sponsor a range of events that address a variety of issues and topics throughout the year. Each committee has representatives who are tapped into the enterprise-wide ERGs for support and guidance, greatly multiplying the reach of our ERGs.

PARADIGM FOR PARITY

In 2017, we became the first in our industry to enter the [Paradigm for Parity Coalition](#), a pledge to bring gender parity to our corporate leadership structure by 2030, and we underscored this commitment when we set our [2030 Sustainability Commitments](#). As part of our pledge, we are implementing a comprehensive action plan to (1) minimize and ultimately eliminate unconscious bias in the workplace; (2) significantly increase the number of women in senior operating roles; (3) measure and communicate progress both with senior leaders and publicly; and (4) build career progress and create a culture change for flexible work arrangements.

Our progress in 2019 included:

- An uptick in the number of women in leadership roles
- Executive-led diversity and inclusion plans for every business and corporate function
- Continued participation by executive leaders in our two-day Diversity Learning Lab
- Increased participation in unconscious bias training (nearly 800 employees, half of them hiring managers)

- Broad deployment of our two-hour Courageous Inclusion course (1,100 employees, half of them managers)
- Enhanced soft benefits for women and new mothers (milk shipping program and improved mother's rooms)
- Rollout of four new career development programs for women (two career development courses, ReLaunch for returning engineers, and many mentoring circles)
- Increased use of our Flexible Professional programs

CEO ACTION FOR DIVERSITY
AND INCLUSION

When America's leading CEOs pledged to cultivate diversity and inclusion in the workplace, expand unconscious bias education and share best practices—both successful and unsuccessful—through the [CEO Action for Diversity and Inclusion](#), we were among the first companies to join. Launched in 2017, today more than 800 CEOs have signed that pledge.

SUPPORTING THE EQUALITY ACT

We joined the coalition of 264 companies calling for the U.S. Congress to pass the Equality Act, which cleared the House of Representatives in 2019 and is now awaiting a vote by the Senate. We also signed a “friend of the court” brief with the Supreme Court, which will rule on a trio of cases that may decide anti-discrimination law for LGBTQ citizens in matters of employment, housing, health care and education.

EXTERNAL RECOGNITION

When we all work together, we can inspire change. Our ongoing actions to create a winning culture were recognized for awards in 2019, including:

- Forbes, America's Best Employers for Diversity
- Forbes, Best Employers for Women
- Forbes, America's Best Large Employers
- Fortune, World's Most Admired Companies
- United Way, Spirit of North Carolina Award
- Urban League of the Central Carolinas, Corporation of the Year
- Woman Engineer Magazine, Top 50 Employers for Women Engineers
- Corporate Responsibility (CR) Magazine, 100 Best Corporate Citizens
- Great Place To Work Institute, India's Best Companies to Work for in 2019
- Great Place To Work Institute, 25 Best Workplaces for Women
- North Carolina Employer Support of Guard and Reserve (ESGR), Pro Patria Award

DIVERSITY AND INCLUSION

🎯 **2020 TARGET**

Created slates of diverse job candidates
—**Achieved**

➤ **2030 GOALS**

Achieve gender parity in leadership roles and enhanced workforce diversity reflective of our communities

🔍 **OVERSIGHT**

We appointed a director of diversity recruiting, in 2018, to spearhead our efforts to attract a broad range of talent to join our team. Our director of diversity recruiting is responsible for increasing engagement with leading professional associations that help women and historically underrepresented groups advance their careers in STEM.

➡ **APPROACH**

As part of our Paradigm for Parity pledge, we are implementing a comprehensive action plan to bring gender parity to our leadership structure by 2030. The leaders of every business have diversity and inclusion action plans that address a broad range of best practices and create learning experiences for managers and employees. Progress against these plans is evaluated quarterly by the chairman and CEO.

- Viqtory Foundation, Military Friendly Employer
- U.S. Veterans Magazine, Top Veteran Friendly Companies
- Wall Street Journal, Management 250
- Annual Conference of Most Respected Companies, Most Respected Company
- Social Responsibility Conference, Outstanding Social Responsibility Program

ENCOURAGING TOUGH CONVERSATIONS

Where many companies discourage conversations about controversial topics, we embrace it. During moments of crisis, employees are often left wondering how to deal with feelings of loneliness, fear and distress, and are expected to leave those feelings at the office door.

But we don't want our people to feel like they can't share—even when it is hard. That's why our progressive, diversity and inclusion (PDI) team created Bridging Connections, sessions that provide an outlet for employees to have open conversations about topics that can be difficult. More than 3,100 employees in 10 countries participated in 2019, discussing issues such as race, gender and mental illness. These sessions have proven that by connecting people and ideas, we can leverage the power of diversity and inclusion to bring people together.

Training and Development

Shifting demographics, digital connectedness and breakthrough technologies are changing the way people live and work.

How do we tackle these pressing challenges? By contributing to industry initiatives that promote manufacturing careers, building and growing workforce training and retention programs, and investing in future workforce development. Our [2030 Sustainability Commitments](#) include a goal to invest in STEM, workforce development and retraining and re-entry programs to foster experience and opportunities.

Our investments in career training and development for our people to grow in their careers at all levels of the company—from hourly employees to executives—ensure our people can learn and thrive with the company, which in circular fashion drives our company's success.

We believe the best learning and development happens on the job. In 2019, 97% of our employees had development plans in place—exceeding our 2020 target of 95%. Additionally, 97% of our salaried employees participated in a development conversation with their manager about key work projects or experiences, coaching, mentoring and formal learning opportunities. This development process enables employees to perform at their best in their current role and prepare for future roles.

Through our efforts in leadership development, strategic capabilities and career progress, we have achieved a score of 74% in our Leadership Effectiveness Index and a 75% in our Growth and Development Index. These areas of focus will help drive our overarching goal of maintaining world-class performance in employee engagement.

INVESTING IN TRAINING AND CAREER DEVELOPMENT

We offer learning solutions that focus on employees' abilities to innovate, collaborate and build strategic capabilities needed to achieve.

On average, our people spent 8 hours on formal training and development in 2019. Our total investment in employee development was \$38 million—or \$800 per employee. The business benefits of this have ranged from higher employee engagement and increased retention rates to technical and leadership skills development, expanded job responsibilities and internal promotions. Our Women's Leadership Program (WLP), for example, has led to promotions for 28% of the 181 participants since the program's inception, and many have assumed expanded roles. Since the program launched in 2012, the yearly turnover among WLP participants has been less than 5% of this critical talent pool. Our Team Leader Development Program (TLDP) has a retention rate of 98% and a promotion rate that is 2x higher among graduates.

2019 TRAINING AND DEVELOPMENT DATA	
Hourly	7 hours
Salaried	9 hours
All employees	8 hours

LEVERAGING ENTERPRISE LEARNING

Enterprise-wide training and development programs are managed centrally through Enterprise Learning, which we established in 2003 to provide education and drive a cohesive company culture. Staffed with learning and development experts, Enterprise Learning is responsible for developing new trainings for executives, sales managers, sales professionals, product and pricing managers and hourly production workers.

In 2019, Enterprise Learning launched a new course to help managers adjust and support their employees through an ever-advancing company landscape. Learning solutions have also been created that are scalable, sustainable and available at the point of need, such as the development of 12 new leader development micro-learning modules in the topics of employee engagement, change and coaching.

In addition to focused training, Enterprise Learning also offers online professional development courses in multiple languages for global employees at all levels. Programs developed and deployed have been externally recognized as best-in-class by multiple organizations, including the Association for Talent Development (ATD).

Examples of the enterprise programs offered globally through our Enterprise Learning include:

Product Management Essentials Program—Designed to teach product managers how to implement best-in-class product management practices. It helps enable employees in product management by combining business objectives with target market needs. The workshop takes participants, step-by-step, through our Product Management Framework, and provides all the necessary tools and templates needed to be successful in product management.

Team Leader Development Program—An 8-week experiential development program that engages, teaches and empowers front-line leaders to make sound business decisions through

TRAINING AND DEVELOPMENT

🕒 2020 TARGETS

Create career development plans for 95% of employees
—Achieved

Improve Leadership Effectiveness Index to 80%

Achieve Growth and Development Index score of 75%
—Achieved

➤ 2030 GOALS

Invest in STEM, workforce development and retraining and re-entry programs

🔍 OVERSIGHT

Our enterprise training and development strategy is governed by a strategy board for Enterprise Learning. Our chief learning officer chairs this board and provides oversight, leadership and day-to-day governance of our enterprise-wide programs. Our chairman and CEO, chief human resources officer, chief technology officer, and executive vice president also sit on our strategy board, along with representation from our Business Unit presidents and Enterprise Function SVPs.

📌 APPROACH

We conduct an annual review process to align business requirements with the training and development needs of our employees. This review process includes input from executive stakeholders and learning managers to close any identified developmental gaps throughout the organization. Specific businesses also develop, maintain and support product or technical training, and certain businesses offer training and development to their dealers and distributors.

a blend of increased tactical knowledge, coaching and development of leadership and problem-solving skills. Currently, there are approximately 30 certified facilitators who have taught nearly 1,100 participants in 43 locations globally. Among the graduates, we have a 98% retention rate and are already experiencing business benefits as these hourly team leaders are demonstrating leadership and problem-solving on the plant floor, which is having a positive impact on quality, productivity and employee engagement.

Sales Management Excellence (IRSMX)—Develops sales management capability in sales managers and their sales leaders. IRSMX is anchored by a 3.5-day workshop and includes self-study, coaching, and immediate application through a 90-day coaching cycle with an expert coach. With approximately 10–15 cohorts per year, we have developed more than 71% of the sales managers and sales leaders in our organization.

Women’s Leadership Program (WLP)—This unique cohort program for high potential women provides an opportunity to network with other women leaders, gain individual insights through a mentoring partnership and build their leadership skills and confidence through a variety of speakers, experiences and assessments. Women in this program gain exposure to senior leaders, contribute to business growth and learn how to navigate the corporate culture through company-specific action learning projects.

SUPPORTING CONTINUOUS LEARNING

In addition to our focus on career development plans, some of our programs include:

Career Development Program—Designed to help all employees—hourly, technician and salaried—grow and develop their career and capabilities. Career Progress includes resources such as My Career Navigator, which helps employees assess and plan their short- and long-term career development.

Field Worker of the Future—We are embracing technology that makes work easier and accelerates learning for our field technicians. With new technology (like Google Glass), we can enable senior technicians to remotely coach junior employees who are on location at customer sites and in real time. Senior technicians will be able to “see” the equipment and resolve problems with the on-site tech, offering coaching and knowledge transfer, radically accelerating technician learning, and satisfying customers more quickly.

My Encore Launch—Designed to leverage the expertise and experience of retirement-eligible and retired employees by providing options to assimilate into retirement and continue to engage with the company post-retirement. My Encore offers two options: Phased Retirement, which serves as a transitional approach to formal retirement

by working part-time for a specific period, and Post Retirement, which enables a retiree to return for project-based work in a contingent work arrangement or via direct hire. We have had 55 participants since inception in December 2017, supporting project-based work in the fields of accounting, human resources, engineering, training, quality, procurement and project management.

Read more about our approach to [training and development](#).

WOMEN ON THE RISE

We’re rising to the challenge to make sure women have equal opportunity and support to rise in leadership positions in our company. In this spirit and in support of our 2030 [Paradigm for Parity](#) goals, we launched Women on the Rise in 2019 with nearly 50 rising women across the company. The program—designed to empower and connect women leaders—focuses on the importance of personal branding. It improves their ability to influence and persuade people at all levels, while connecting with peers and mentors that will support them on their career path.

“To say we grew this week in more ways than ever expected would be an understatement ... I’m so inspired by this experience ... I can’t thank my support system enough for always encouraging and pushing me to do my best and get out of my comfort zone.”—Kristi Compton, Application Developer and Woman on the Rise

Occupational Health and Safety

Eliminating injuries and improving well-being of our employees makes us more competitive by increasing productivity, enhancing employee engagement, improving retention and reducing health care costs.

Our EHS strategy is to sustain a safety-focused zero injury and incident culture. This commitment and accountability begin with our chairman and CEO and permeates the entire organization. As a result, in 2019, we made significant progress, achieving a 33.3% lost time incident rate (LTIR) and 7.2% total recordable incident rate (TRIR) reduction and have recommitted to world-class safety performance by 2030.

Our [2030 Sustainability Commitments](#) push us to put the best minds and the best technology to work. We remain firmly committed to maintaining world-class safety metrics, as we endeavor to develop solutions and challenge what is possible.

Our injury prevention efforts focus on:

- Expanding our internal audit process to include all EHS management system elements
- Continuing to mature our Behavior-Based Safety (BBS) program
- Growing our ergonomics program and aggressively reducing risk factors at targeted workstations and within our service populations
- Embracing a continuous improvement mindset by developing and implementing strategies to address identified gaps

Creating standard work and training programs provides employees with the tools and knowledge they need to perform their job safely and without injury. Our EHS auditing program exceeds regulatory requirements to include our internal EHS management system requirements. This ensures that we implement consistent expectations across the enterprise.

🎯 2020 TARGET

Achieve world-class performance in lost time incident rate, with a 60% reduction from a 2013 baseline

🚩 2030 GOAL

Maintain world-class safety metrics

100 DAYS OF SAFETY

Our data shows the highest injury rates occur during the summer months, so we created our “100 Days of Safety” program. When we see a challenge, we believe in taking action and empowering our people to do the same. In 2019, we expanded the “100 Days of Safety” program to focus on our number one injury type: line of fire. We created awareness training to educate employees more about this risk, and our strategic business units held contests to see who could identify and mitigate this hazard. As a result, 1,862 safety concerns were reported during 100 Days of Safety—a 71% year-over-year increase. Trailing metrics, like OSHA recordable injuries, TRIR and LTIR, significantly declined during the same period.

Across our company, everyone is responsible for our collective safety. Our BBS program establishes a global structure to promote open discussions with management and employees regarding work-related hazards and safety issues. Safety expectations are communicated through quarterly CEO town hall meetings as well as monthly environmental, health and safety (EHS) meetings at both the facility- and service-organization levels. These meetings raise awareness of safety risks and preventative measures and provide our employees with opportunities to share best practices.

The results of our annual employee engagement survey continue to reflect our ongoing efforts to create a safety-focused culture. For the past two years, we scored an 88 on our measures of employee safety, with 90% of our employees responding favorably that the company is committed to employee safety and 90% indicating they feel free to discuss work hazards and safety issues freely and openly.

Another area of continued focus is ergonomics awareness and reducing manual material handling, eliminating postural problems and reducing repetitiveness along production lines. We have, for example, piloted a targeted wellness program for service technicians aimed at enhancing strength and mobility of key body parts.

We review trends and gaps to determine if there are areas we need to focus more on and what strategies would help us mitigate and reduce risk.

2019 OCCUPATIONAL HEALTH AND SAFETY DATA	
Total recordable incident rate	0.77 (per 200,000 hours worked)
Lost time incident rate	0.08 (per 200,000 hours worked)
Employee lost time frequency rate	0.39 (per million hours worked)
Contractor lost time frequency rate	0.28 (per million hours worked)
Employee occupational illness frequency rate	0 (per million hours worked)
Work-related fatalities	0 fatalities
Total hours worked	98,708,689 hours among employees and supervised employee contractors
7.2% DECREASE IN TRIR 33.3% DECREASE IN LTIR per 200,000 hours worked	

LOST TIME INCIDENT RATE (NUMBER OF EMPLOYEES PER MILLION HOURS WORKED)					
2019	2018	2017	2016	2015	2014
0.38	0.56	0.56	0.61	0.64	0.84

Corporate Citizenship

Across the globe, megatrends such as climate change, urbanization and resource constraints are creating unprecedented social demands for advanced education and workforce development, housing and cooling comfort, and healthy perishable foods and goods.

Our citizenship investments rest at the intersection of these megatrends, our advanced technology and expertise in HVAC and transport refrigeration, and the unique needs of the communities where we live and work. Our aim is to create opportunity for all, putting more back into society than we take out, and achieving measurable results in our citizenship focus areas that are well aligned to both our business strategy and the [United Nations Sustainable Development Goals \(SDGs\)](#).

ACHIEVING OUR 2020 SUSTAINABILITY COMMITMENTS FOR CITIZENSHIP TWO YEARS EARLY

In 2014, we set ambitious sustainability goals for corporate citizenship centered on (1) expanding competency in energy and other resource efficiency; (2) inspiring STEM education and workforce development opportunities; (3) addressing nutrition and food waste reduction; and (4) supporting housing and shelter needs.

Together with a network of community-based nonprofit organizations, we awarded [180 grants](#) and 227 scholarships (19 outside of the U.S.) and our employees volunteered 110,261 hours (between 2014–2018, the timing of our 2020 commitments). As a result of the dedication of our people around the world, we achieved our 2020 commitments two years ahead of schedule:

2020 CITIZENSHIP PRIORITY	2020 TARGET
Expand competency in energy and other resource efficiency	Share energy conservation knowledge with 200 officials in developing regions.
2020 Outcomes	
We shared energy conservation information with more than 201 officials.	
Among many other activities, we continued to educate government officials and industry bodies around the world in 2019 (U.S., European Union, India, China and others) on energy-efficient and lower global warming potential technologies, stressing the importance of making buildings and transportation more energy efficient, not just compliant with regulations.	
We also presented at conferences and led national and international committees and working groups, such as ASHRAE, AHRI, UL, IEC, EN, UN and ISO, and served as a resource to state and local governments to help them understand the next-generation refrigeration landscape.	

Continued

2020 CITIZENSHIP PRIORITY	2020 TARGET
Inspire STEM education	Launch signature program to increase female representation in manufacturing positions and advance technical workforce development programs at 100 community colleges and technology institutes worldwide. Sponsor 20,000 females in STEM-related activities to increase career interest.
2020 Outcomes	
We reached 106 community college and technology institutes and more than 210,201 women with STEM-related activities, far exceeding our goal of 20,000. In partnership with the Agastaya International Foundation in India, we created mobile science labs and centers that provided teacher training, science fairs and summer camps to economically disadvantaged children and government school teachers. As the exclusive HVAC and energy efficiency industry sponsor for NC3, we strengthened career and technical education and workforce development opportunities through grants to support 81 community colleges and technology institutes.	
2020 CITIZENSHIP PRIORITY	2020 TARGET
Address nutrition and food waste reduction	Provide food and nutrition education to 200,000 children.
2020 Outcomes	
We provided food and nutrition education to 261,860 children through partnerships with American Heart Association and Second Harvest through Feeding America. Together with the American Heart Association, we brought Kids & Nutrition assemblies to elementary schools across Mecklenburg County, North Carolina. Thousands of children learned about sugar intake, took books home that contained kid-friendly recipes and learned how to eat healthy on the go.	
2020 CITIZENSHIP PRIORITY	2020 TARGET
Support housing and shelter needs	Volunteer 40,000 hours related to housing and shelter.
2020 Outcomes	
Our employees volunteered 51,453 hours, exceeding our goal of 40,000 hours. We operationalized United Way campaigns in 24 U.S. cities to address critical issues in America's communities including housing and shelter needs. Employees volunteered and raised funds for United Way, which included a company match for every employee donation. The U.S. company-wide campaign totaled more than \$2.89M to local communities.	

CREATING OPPORTUNITY FOR ALL THROUGH OUR 2030 CITIZENSHIP COMMITMENTS

With our 2020 commitments for citizenship met in 2018, we pivoted our citizenship focus towards the future. The successes, lessons learned, partnerships built, and communities positively impacted paved the way for us to commit to a bigger, bolder company-wide strategy and aspirational targets as part of our [2030 Sustainability Commitments](#) announced in 2019.

We embrace the unique role we play as a climate innovator for buildings, homes and transportation. With our global footprint, unique innovation, and our expertise, we can (1) increase education and economic mobility in communities where we live and work; (2) increase access to housing and cooling comfort; and (3) increase the availability of healthy food to people who need it most.

Our 2030 citizenship commitments are:

- Establish a network of partners to foster STEM and early education experiences for individuals in underrepresented communities.
- Invest \$10 million in workforce development and re-training/re-entry programs to foster experiences within underrepresented populations.
- Establish a community impact grant program with hyper-local organizations to address systemic challenges in underrepresented communities where we operate and serve (with poverty levels >12%).
- Dedicate 100,000 employee volunteer hours to signature programs that increase access to food, housing and climate comfort, and other well-being services.

STRENGTHENING OUR DELIVERY MODEL

In 2019, we developed a citizenship delivery model with three categories and set “Best of the Company” criteria to bolster the impact, transparency and governance of our citizenship initiatives.

- **Signature:** Partnerships with larger national and international organizations tied to education and economic mobility, housing and cooling comfort, healthy food and other well-being services with organizations such as Feeding America, American Red Cross and Climate Generation.
- **Strategic:** Partnerships with established regional organizations, primarily tied to education and economic mobility such as Discovery Place Science Museum, Explore More Life Sustainability Lab and Ada Jenkins Center’s transitional housing program.
- **Community Impact:** Partnerships with hyper-local organizations addressing systemic economic mobility challenges in underrepresented communities working with organizations such as Pueblo School of Arts & Science, Chapel Hill Career and Technical Education and the East Trenton Collaborative.

As part of the delivery model, we defined and began to apply a “Best of the Company” approach that includes:

- Funding for programs only (limited/no operating costs)
- Asking leaders to participate on nonprofit boards and champion project teams of partner organizations
- Encouraging and incenting skill-based employee volunteerism and employee fundraising
- Increasing in-kind giving of HVAC and Transport Refrigeration products and services
- Progressing toward outcome-based metrics (in addition to output metrics)

In 2019, in line with this delivery model, we supported and funded:

6 Signature partnerships	13 Leaders on nonprofit boards
28 Strategic partnerships	6 Expertise projects
12 Community impact partnerships <ul style="list-style-type: none">▪ 44% in Charlotte▪ 52% in other U.S. markets▪ 4% in countries outside of the U.S.▪ 89% in markets with poverty levels >12%	21 Community-based events

OUR FOCUS AREAS

EDUCATION AND ECONOMIC MOBILITY

We believe that education and economic mobility are central to strengthening communities and building a workforce for the future. Approximately 90% of the manufacturing communities where we operate have poverty rates above the 12% national average including the city of our U.S. headquarters, Charlotte, NC, which ranked 50 out of 50 in U.S. cities for economic mobility in a 2013 Harvard University/UC Berkeley study.

At the same time, manufacturers are competing for talent like never before because of an aging population and skilled labor shortages. In fact, the manufacturing skilled labor shortage is expected to increase to 7.9 million people globally by 2030 (from today’s 2 million people).

By increasing access to early childhood, STEM and climate-related education experiences for underserved populations, we have an opportunity to increase economic mobility and build the skilled labor pool for our business and others.

Specific social KPIs for our education and economic mobility focus area include:

- Increase access to STEM education experiences for underrepresented populations
- Increase number and marketability of skilled workforce targeting labor shortages in the manufacturing sector
- Advance communities historically left behind through workforce training where we operate

OUR 2019 PROGRESS

Network of partners to foster STEM and early education experiences

We have established a network of 8 nonprofit partners to create high touch and high reach experiences for underserved populations, and to extend access to STEM and climate-related education through museums, multimedia and grassroots engagement.

- **Discovery Place Charlotte:** As the official Sustainability partner of Discovery Place, we began activities where company experts share knowledge about reducing food waste, the relationship between water and heat, and the resources that provide breathable air and drinkable water. We also performed an energy audit paired with advisement from our EVP and Chief Technology and Strategy Officer who serves on the Discovery Place Board of Directors.

- **National Society for Black Engineers (NSBE):** Together, we are in the early phases of developing SEEK, an engineering immersion program to expose racially and ethnically under-served populations in grades 3–5 in Charlotte to STEM education. The initiative is facilitated by employees and championed by company leaders active in the organization and on the NSBE Board of Directors.
- **Project Scientist:** Women make up nearly half of the U.S. workforce, but hold less than a quarter of the country’s STEM jobs, according to the U.S. Department of Commerce. Project Scientist seeks to close this gender gap by identifying, educating and coaching girls ages 4–12 at the beginning of the STEM talent pipeline. We have continued to work with Project Scientist to scale their program in markets including Charlotte, Southern California and Minneapolis/St. Paul. In 2019, our Senior Vice President and Chief Information Officer joined the Project Scientist Board of Directors. Together, we are co-developing sustainability curriculum, providing human resource advisement and networking Project Scientist to other potential corporate partners.

Invest in workforce development and re-training/re-entry programs We partner with our progressive, diversity and inclusion (PDI) and talent teams to identify critical workforce needs for the future and design programs that help address these gaps. One example is our company and HVAC industry need for HVAC technicians who install and service systems and controls technology. Our employee resource group called the Black Employee Network helped tackle this issue through a unique partnership with the Urban League:

- **Urban League of Central Carolinas:** We supported a 16-week HVAC training program for students that focuses on the knowledge and hands-on skills needed to be ready for certification and immediate entry-level employment. In addition, we hosted an on-site career workshop that equipped HVAC trainees with the skills needed to be employment-ready following program completion.

Establish community impact grant program with hyper-local organizations

We established a program to engage with hyper-local organizations that are dedicated to improving career and technical education in high schools, investing in workforce training for less skilled workers, expanding access to quality early-childhood education, and investing in distressed neighborhoods.

These organizations can receive up to \$5,000 in funding for programs. Examples include the Chapel Hill Career and Technology Education in Tyler, Texas, where we funded and provided skill-based expertise to develop curriculum to teach manufacturing skills in the classroom; Pineville Neighbors in Pineville, NC, where we funded a transitional housing program to assist families in need to provide stable, affordable housing; and the East Trenton Collaborative in Trenton, NJ, to offer residents of 20 or more years funding to improve health and safety features in addition to exterior repairs, helping long-time community members age in place and keep their homes.

HOUSING AND COOLING COMFORT

Access to housing and cooling comfort are critical issues for our company. As the world warms and weather becomes more unpredictable, shelter and cooling comfort are becoming even more important. That’s why we work to improve access to affordable housing, increase the availability of cooling comfort and educate people on how to improve home efficiency and indoor air quality.

Specific social KPIs for our housing and cooling comfort focus area include:

- Improve access to energy-efficient and affordable housing globally
- Increase access to cooling and comfort in under-served communities where climate change impact poses risks to health and well-being
- Improve and expand education on home efficiency and indoor air quality control

OUR 2019 PROGRESS

Provide Senior Care in China

We have an established signature partnership with the Guangzhou Zhi Kun Foundation to improve the living environment and enhance quality of life for the elderly in China, a significant issue in Chinese society. The partnership leverages the company’s resources, technology advantages and employee engagement to create a curriculum on home HVAC maintenance and air conditioning cleaning and maintenance. In 2019, more than 100 employees volunteered to support 116 seniors through the program.

Work with Habitat for Humanity to Improve Home Efficiency

More than 40 million Americans live at or below the poverty level and lack access to affordable housing and the necessary information to avoid home maintenance issues and costs. In late 2019, we initiated a signature partnership with Habitat for Humanity to develop home maintenance curriculum including home efficiency, heating and cooling and air quality. The program will be implemented in select U.S. markets in 2020 where the need is greatest, and in line with our dealer and distributor network and employee base for volunteerism, fundraising and sharing expertise.

HEALTHY FOODS

The greatest challenge getting food to the 795 million people around the world who don’t have enough is refrigerated transport. Through our Thermo King business, we use our refrigerated transport knowledge and products to move fresh, healthy food and get it where it’s needed most. With our knowledge and products, we can also help tackle the problem of food waste. Approximately one third of food produced is wasted, which results in close to 10% of global GHG emissions.

Specific social KPIs for our healthy foods focus area include:

- Increase access to fresh, healthy foods in food deserts, helping to decrease the number of food deserts around the world
- Fund more mobile food pantries to improve fresh food transport
- Decrease amount of food waste

OUR 2019 PROGRESS

We Move Food

We designed and continue to grow the We Move Food program together with Feeding America to transport perishable foods to 26 of the most food insecure markets in the U.S. as well as Brazil.

Our employees and Thermo King dealers in 30 cities have volunteered with mobile food pantries and food banks, applied expertise to increase the efficiency of Feeding America food banks and facilitated in-kind giving through a free and deviated pricing program.

In total, approximately \$578,000 has been donated to Feeding America from the company foundation, Thermo King dealers and the employees at Thermo King locations. Going forward, we plan to measure reduction in food loss and avoided CO₂ emissions as a result of the program.

MEASURING OUR IMPACT: KEY PERFORMANCE INDICATORS

We are taking steps to shift our metrics from “outputs” (like number of people served) to “social and business outcomes” (like carbon emissions avoided or maintenance cost decreases). As a step forward in 2019, we aligned our citizenship investments to our business strengths, employee expertise and communities where we live and work.

In addition to the KPIs included above, we are working towards cumulative social KPIs including:

- Investment/funding for programs and in-kind giving across our citizenship focus areas in communities where we operate and serve including Charlotte, NC.
- Provide 100,000 employee volunteer hours towards our citizenship initiatives.
- Reach individuals primarily in underserved communities where we live and work through our citizenship and community investments.
- Future: Measure outcomes in areas like carbon emission avoidance, food loss reduced, home and building maintenance cost reduction, long-term impacts on education.

Our business KPIs include:

- Higher employee engagement
- Increase in employee volunteerism centered on citizenship focus areas
- Increase in brand equity and reputation
- New and expanded business opportunities for sales teams, dealers and distributors
- Stronger value chain through tighter stakeholder relationships (customers, suppliers, partners)
- Higher visibility in areas outside our traditional footprint of collaborative partnership

We look forward to building on our social and business KPIs as we progress towards our 2030 targets.

GOVERNANCE AND TRANSPARENCY

Our citizenship governance and transparency has been a critical focus in 2019, ensuring that the “Best of Company” approach was applied consistently and that we would be well positioned in our maturity toward outcome-focused metrics.

We implemented the Benevity Foundation Management Software, which has helped us better track and improve transparency of our grant recipients, volunteer hours, employee donations and matching funds and improve communications.

CORPORATE CITIZENSHIP

🎯 2020 TARGETS

- Achieve 75% employee participation in community or sustainability initiatives
- Share energy conservation knowledge with 200 officials in developing regions —Achieved
- Launch signature program to increase female representation in manufacturing positions and advance technical workforce development programs at 100 community colleges and technology institutes worldwide —Achieved
- Sponsor 20,000 females in STEM-related activities to increase career interest —Achieved
- Provide food and nutrition education to 200,000 children —Achieved
- Volunteer 40,000 hours related to housing and shelter —Achieved

➤ 2030 GOALS

- Broaden community access to well-being services including food/nutrition, housing and shelter, transportation and climate comfort
- Invest in STEM workforce development and retraining programs
- Establish network of partners to foster STEM and early education experiences
- Launch seed grants for critical mobility needs

We also evolved the role of the company’s Foundation Council to include citizenship strategy, 2030 commitment setting, and championing grant programs. Further, the Foundation Council reviews all grants awarded over \$50,000 twice annually to ensure quality of execution. This update was reflected in a refreshed Foundation Charter and captured in meeting minutes, both available on the company’s [website](#).

GLOBAL CONTRIBUTIONS	2019	2018	2017	2016	2015
Volunteer participants	17,044	17,038	13,292	4,765	3,655
Hours volunteered	31,682	30,492	25,252	19,301	19,390
Charitable fundraising	\$1,007,855	\$1,789,290	\$7,430,620	\$5,519,771	\$5,168,408
Value of employee volunteering time during paid working hours	\$805,673	\$752,847	\$623,471		
In-kind giving*	\$1,818,909	\$253,926	\$226,648		
Management overheads	\$150,407	\$61,998	\$39,419		
Ingersoll Rand Foundation donations to community partners	\$5,455,080	\$4,262,499			

*Significant jump from 2018 to 2019 due to improved reporting capabilities.

EMPLOYEE AND COMMUNITY ENGAGEMENT DATA
36% of employees globally participated in community or sustainability initiatives in 2019.
Total philanthropic giving in 2019 including foundation, in-kind and employee fundraising and donations was \$8,432,521.

WORKING TO ELIMINATE ENERGY POVERTY

Every night, 18% of the world’s population is left in the dark. Energy poverty—living without access to electricity and clean cooking facilities—is a global challenge with a profound impact on health and well-being. It kills more people each year than malaria and HIV combined and restricts economic mobility for billions of people who are unable to work, cook or study after the sun goes down.

Leaning into our 2030 Sustainability Goals, we partnered with [SolarBuddy](#) in their mission of gifting six million solar lights to children living in energy poverty. More than 1,000 of our employees got involved to donate and help assemble 3,000 lights that will give 1,000 students in Tanzania, the Dominican Republic, India and South Africa more time in their day to study and commute safely to school. Powered by renewable energy, these lights are also going to decrease the use of unsustainable energy sources like kerosene. Working together is how we contribute to making big ideas like SolarBuddy happen.

Supplier Diversity

Supplier diversity is integral to our global integrated supply chain strategy. It is consistent with our values, enhances our competitiveness and capacity building, drives market connectivity and creates jobs and economic growth in the marketplace. Our supplier diversity program embraces suppliers who are at least 51% owned, operated and controlled by minorities, women, veterans, LGBTQ individuals or people with disabilities.

We focus on four pillars:

1. Increased utilization of diverse suppliers
2. Supplier development and mentoring
3. Strategic outreach
4. Program globalization

Our innovative process identifies and pre-qualifies diverse-owned businesses to ensure a robust pipeline of diversity for procurement opportunities. The seven-step strategic sourcing process includes a Supplier Diversity Matrix, which enables us to avoid using price as the primary driver for supplier selection. Instead, we consider a range of factors as agreed upon by a cross-functional team, including supplier diversity, quality and risk. This program has improved our supplier diversity scores by 18%. Engagement with minority-owned business improved, with more than \$12 million awarded in new business from participating corporations. In 2020, we plan to go even further and engage with TriState Council to create and deliver a continuation of these growth opportunities in a program called COE NEXT.

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Extend supplier diversity program to spend with diverse communities globally

—Achieved



TEAMING UP WITH THE VISABILITY ERG

In 2019, our Supplier Diversity program teamed up with our VisAbility Employee Resource Group (ERG) to support Disability:IN, a network of more than 160 corporations devoted to expanding opportunities for people with disabilities across enterprises. In addition to hosting their statewide conference at our headquarters in Davidson, North Carolina, our associates participated on planning committees and spoke at events. One of the sessions, called “What College Students with Disabilities Want Your Corporation to Know,” helped disability-owned businesses manage the certification process to do business with major corporations and break down barriers to entry.

SUPPLIER DIVERSITY DATA

We purchased \$532 million in goods and services from diverse-owned businesses in 2019, an 18.75% increase from 2018.

Since the inception of the program, we have purchased more than \$2.6 billion in goods and services from diverse-owned businesses in the United States.

SUPPORTING WOMEN BUSINESS ENTERPRISES

Through our 2016 commitment to [WEConnect International](#), we are expanding inclusive sourcing by collectively spending \$15 billion with women-owned businesses globally through 2021. This year, we reported \$311 million global spend with women-owned businesses, which reflects a 22.9% increase over prior year results. We are committed to creating an environmentally and socially sustainable supply chain, recognizing that inclusion of women-owned businesses promotes innovation and enables women to build wealth and sustainable prosperity in their communities around the world.

Our Supply Chain, Products and Services

We expand access to sustainable climate-control solutions. We do that by working with our supply chain through innovation and product deployment, and by considering sustainability factors when we make product decisions. We assess, for example, whether a product is an energy- and resource-efficient solution that creates value for our customers.

Supply Chain Transparency and Performance

We are a global provider of energy-efficient technology solutions and make sure our suppliers share our values and commitment to sustainability. We have high expectations regarding customer and business standards and processes that ensure our suppliers align with those standards.

TEAMWORK IN OUR SUPPLY CHAIN

In 2019, we launched our Global Procurement Sustainability and Supplier Diversity Council. With membership from each procurement category, direct procurement, indirect procurement, each region and each strategic business unit, the Council is dedicated to finding sustainable solutions. They meet monthly to discuss current initiatives and projects, track data from our supplier dashboards and drive awareness within global procurement. These efforts improve communication and help us innovate and improve our world and our supply chain.

In 2019, our combined annual spend was \$10.2 billion for direct and indirect commodities. We have more than 20,000 suppliers from across the globe. It is our responsibility to partner and assist our suppliers in their efforts to achieve sustainability goals—an effort that ultimately benefits our customers and the environment.

MANAGING OUR SUPPLY CHAIN

Our supply chain is guided by a set of standard business tools and strategies that define not only what we do but how we do it. This helps us ensure we apply the most effective strategies to eliminate waste, improve efficiency and enhance agility in execution. We are committed to operational excellence reflected in the sustainability standards we set for ourselves and for those we work with. We apply a region of use philosophy that localizes manufacturing and the supply chain to help us increase spend to market and implement local product preferences.

In turn, we cultivate a sustainable, innovative supply chain that fosters diversity, minimizes environmental impact and meets customer needs.

ALIGNING TO COMMON VALUES AND EXPECTATIONS

Maintaining the highest ethical standards has never been more important than in today’s competitive and rapidly changing global business climate. To ensure alignment to a common set of expectations, we include our [Business Partner Code of Conduct](#) (BPCoC) in our standard terms and conditions and require new suppliers agree to our BPCoC as a part of our onboarding Standard Work.

Our BPCoC outlines expectations that our suppliers do not violate basic human rights of life, liberty and security. No form of harsh or inhumane treatment will be tolerated, such as sexual harassment, sexual abuse, corporal punishment, mental or physical coercion or verbal abuse of workers. Suppliers must have an effective environmental policy and conduct their operations in a way that protects the environment. Suppliers must also obtain and keep current all required

environmental permits and meet all applicable environmental rules, regulations and laws in the countries where they do business.

Through our supplier onboarding standard work, all new suppliers are required to accept and agree to our BPCoC whenever entering into a contract or accepting a purchase order. We not only expect they operate in full compliance but also that they too hold their suppliers to the same standards.

ESG EXPECTATIONS

In January 2019, we introduced our new Supplier Sustainability Expectations and development plan for furthering our suppliers’ sustainability. Our suppliers:

- Work to conserve consumption of energy, water and other natural resources
- Manage operational hazardous and non-hazardous waste
- Abide by our Packaging Guidelines and participate in Packaging Improvement Plans
- Adopt or develop a Health and Safety management system
- Create an emissions inventory in order to measure Scope 1 and Scope 2 GHG emissions
- Apply life cycle thinking in their own processes and products
- Implement their own supplier sustainability program to hold suppliers to the same standards
- Execute a system to identify, track and eliminate any regulated substances in their products
- Agree to use good faith efforts to support minority-owned businesses

A core tenant of our sustainability strategy is partnering with our suppliers to minimize the environmental impact of our supply chain. In early 2019, we implemented a supply chain sustainability reporting platform to report annual energy, waste, water and safety data. By the end of 2019, we had 90% of preferred supplier spend enrolled.

ENSURING A VIABLE SUPPLY CHAIN

For two years in a row, we have exceeded our 2020 target to assess 90% of our direct material spend for risk quarterly. In 2019, we reached 100% of our direct material spend. Through this process, we gain an understanding of our suppliers’ environmental and social performance, which enables us to manage risk and collaborate with those proven best-in-class. For more information about risk factors associated with our supply chain, see our [Form 10-K](#).

PREFERRED SUPPLIER PROGRAM

Our Preferred Supplier Program is a key initiative to identify and engage world-class suppliers. This program is for our most strategic partners and provides them with growth opportunities while helping us build a supply base that aligns with our core values. They are requested to report annually on sustainability metrics.

At the end of 2019, 42% of direct spend was with preferred suppliers.

We leverage our product development process—the IRPDP—to use preferred suppliers and are on track to meet our goal of completing 80% of Early Sourcing Work Plan in phase 1 of the IRPDP. Additionally, taking an “in region, for region” philosophy allows us to deliver products to market quickly, implement local preferences, reduce freight costs and improve our quality and reliability by being near our supplier partners.

SUPPLY CHAIN TRANSPARENCY AND PERFORMANCE

🕒 2020 TARGETS

Reach 100% of new suppliers agreeing to our Business Partner Code of Conduct
—Achieved

Achieve 60% of direct material spend with preferred suppliers

Complete 80% of Early Sourcing Work Plan in phase 1 of IRPDP

Ensure all businesses have a packaging improvement plan
—Achieved

Track participation in waste, energy and water reduction programs
—Achieved

Measure improvement of suppliers in water-stressed regions
—Achieved

Reduce emissions due to freight by 5%

Designate 90% of our direct material spend on a quarterly basis for risk
—Achieved

🔍 OVERSIGHT

Our supplier sustainability manager and senior manager of Supplier Diversity are responsible for leading the sustainability efforts of our supply chain, including diversity and inclusion within the supply chain.

➡️ APPROACH

As part of our enterprise risk management processes, we assess the sustainability and business continuity risks associated with our supply chain. Our BPCoC is integral to our standard purchase agreement and communicates the social, environmental, quality and compliance expectations we have for our supply chain partners.

SUPPLIER SELECTION AND DEVELOPMENT PROCESS

We use a seven-step Strategic Sourcing process with a Supplier Decision Matrix, which weights factors including sustainability. Additionally, sustainability and business continuity risks are evaluated through On-Site Assessment (OSA) audits. This process covers about 1,500 suppliers over a three-year period and, in 2019, about 86% of our direct material spend. Our goal is to have all new suppliers assessed by the OSA process.

OSAs include social and environmental criteria to evaluate all our new direct material suppliers. For example, the assessment asks if suppliers have a program for tracking and managing energy usage and hazardous waste and if they are in high-risk water areas. The assessment screens for human rights and labor practices criteria by asking, for example, if the supplier’s hiring and compensation practices meet or exceed local legal requirements and if the supplier refrains from the use of prison or forced labor.

In 2019, this social and environmental screening process for new suppliers resulted in 87% of our controllable spend suppliers agreeing to our [Business Partner Code of Conduct](#).

The OSA process, which is led by a team of 40 engineers who report to the vice president in Procurement, addresses several categories including: environmental protection; human rights and labor relations; product compliance; EHS and compliance and sub-supplier management. We complete the process on a regular basis, including reviews of audit results and follow-up monitoring of findings.

Suppliers are required to achieve a minimum score of 80% to do business with us. We work with suppliers to understand their score and put together action plans for improvement. In 2019, 501 suppliers were assessed for environmental impacts and none were identified as having significant actual or potential negative environmental impacts. Additionally, more than \$1.9 billion of our spend participated in supplier sustainability development activities, including webinars on sustainability topics, toolkit sharing, desktop coaching sessions and supplier on-site meetings.

ESG WEIGHTING

We weight suppliers’ ESG performance when assessing them through:

- **Supplier decision matrix**—allows for weighting of ESG as part of the overall supplier evaluation. Weighting is determined by a cross-functional team based on the type of purchase and criticality of ESG to that component.
- **Initial on-site assessments**—prior to conducting business, suppliers must achieve an overall score of 80%, of which ESG is 20% of the weighting.

- **Preferred Supplier Program**—includes a requirement for suppliers to align with our sustainability expectations and report on sustainability metrics in order to be a preferred supplier.

RISK ASSESSMENT PROCESS

In addition to our strategic sourcing process and OSAs, we assess our supply chain for risk in our Enterprise Risk Management process on an ongoing basis. Combined with our category risk assessment process, we use data from D&B, Amber Road (critical listing and sanctions) and assess for risks on quality and supplier dependency. We meet with our suppliers regularly as part of our Supplier Relationship management process for review and consideration for our Preferred Supplier Program.

CONFLICT MINERALS STATEMENT

We expect suppliers to source minerals responsibly through due diligence, compliance policies and reporting. Currently, we use the standard EICC/GeSI template to survey suppliers, and we encourage our suppliers to do the same. We will seek to responsibly source materials from the covered countries and avoid supporting the armed groups causing human rights violations.

We conducted a reasonable country of origin inquiry (RCOI) about the minerals specified by Rule 13p-1 of the Securities Exchange Act of 1934, as amended (the “conflict minerals”) that were necessary to the functionality or production of products manufactured by the company in 2019. Through due diligence, we identified the source and chain of custody of conflict minerals using the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (the “OECD Framework”). Read more about our approach to [conflict minerals](#).

SUPPLY CHAIN ASSESSMENTS	2019	2018	2017
Direct material spend subject to on-site assessments	86%	82%	N/A
Direct material spend assessed on a quarterly basis for risk	100%	95%	87%

Technology and Innovation

We define innovation excellence as the ability to rapidly transform creative ideas into commercially viable product and service offerings while optimizing selection and development. Finding new ways to meet the market’s future needs for reliable, energy-efficient solutions is critical to driving our organic revenue growth.

Our average innovation revenue from 2016 to 2019 was 18.60%.

In 2019, we spent \$236.2 million on research and development and launched 87 new products and services, spanning nearly every business and region. We refreshed 19.6% of our product portfolio over the past five years, achieving superior breadth and depth in every major category. Each of these new products features sustainable design, is aligned with total life cycle management principles and uses natural resources more efficiently than before. Read more about the Ingersoll Rand Product Development Process (IRPDP) and our [product life cycle](#) management.

TECHNOLOGY AND INNOVATION

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Invest \$500 million in product-related research and development to fund long-term GHG reduction
—Achieved

▷ 2030 GOAL

Design systems for circularity and increase access to cooling, fresh food, water and clean air

Q OVERSIGHT

Our senior vice president and chief technology officer manages product stewardship through oversight of engineering, innovation, product development and growth strategy.

➡ APPROACH

The Ingersoll Rand Business Operating System (BOS) is the framework we use to translate the market intelligence gathered into new products, services and solutions.

Our innovation roadmap focuses on ensuring that we remain positioned in the right markets with the right products, services and technology capabilities. We do this by leveraging customer relationships, applying advanced data analytics and systemically drawing feedback from our global supplier base. We use our Business Operating System (BOS) as a framework to translate the market intelligence we gather into new products, services and solutions.

The global trends that inform our [2030 Sustainability Commitments](#)—urbanization, resource constraints, climate change and workforce dynamics—will have an especially powerful impact on our customers and the solutions we provide. Enterprise-wide collaboration and knowledge transfer, which we foster through frequent exchange programs with global engineering leaders, drive our culture of innovation. We also form global distributed team structures for all new developed-market product engineers to grow skills in emerging-market R&D teams.

INNOVATION FOR EMERGING MARKETS

One of our growth strategies is to increase our engagement in emerging markets, with the goal of improving living conditions in base-of-the-pyramid communities while addressing poverty and urbanization. Our emerging-market revenues were \$18.4 billion in 2019.

We use a three-step process to prioritize our investments in emerging markets.

- We consider the macroeconomic and geopolitical conditions at the country level.
- Where these factors are acceptable, we perform an analytical assessment of the current attractiveness of our business, considering competitors, customers and channels.
- We consider how the attractiveness of our business will likely evolve over time.

One example of how we can enter early-stage markets with our products is a recent program the HVAC business is working on in China. The “Coal to Electricity” program initiated by China’s government is intended to significantly lower coal consumption for winter heating in North China, prevent air pollution and reduce PM2.5 emissions to improve long-term air quality in China. Our market and engineering teams and sales channels are collaborating to develop a new product with vapor injection and variable-speed technology to deliver heating capability that meets the needs of low-temperature environments. We continue to aggressively participate in more early-stage market opportunities.

Product Safety and Reliability

The safety and reliability of our products are imperative. We thoroughly incorporate safety and reliability into all phases of our product development process—from research through manufacturing to installment and service. During phase two of the Ingersoll Rand Product Development Process (IRPDP), our team identifies risks related to environmental, health and safety (EHS) and/or sustainability considerations in compliance with related codes that affect the product.

We measure the health and safety of our products through serviceability, reliability and durability. These metrics evaluate the initial quality and the time it takes to resolve a design issue from the moment it is first identified. We are operating at world-class levels for quality, design and cost—80% of projects meet quality, design and cost goals.

Our standard practice is to comply with regulations and various voluntary codes concerning product labeling and service information, marketing communications and customer safety. Each of our businesses has a designated legal counsel who follows a process for addressing issues of noncompliance in these areas. Due to market differences, each business is responsible for tracking noncompliance-related incidents. We do not collect this data or make general statements on this topic at the enterprise level.

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Improve service ability through our IRPDP (our product development process)
—Achieved

Social Impact of Our Products

Our products and services create comfortable, sustainable and efficient environments that improve quality of life. As global temperatures continue to rise, and other megatrends such as urbanization and resource constraints impact the globe, demand for cooling comfort will continue to increase. Our team is at the forefront of innovating where these global trends intersect with buildings, industrial processes and transportation needs. In short, people need sustainable access to cooling comfort and healthy food, and we help though expanded access to sustainable climate-control solutions.

We leverage leading-edge technologies to model and simulate our products in their design phase and beyond to deliver optimum solutions that reduce energy use and improve efficiency. For example, our [Trace 3D™ software](#) is a standard used by many building experts to optimize energy use in buildings resulting in substantial energy and cost savings; and [Trane Intelligent Services](#) continue to be at the forefront of energy optimization contributing in cost-effective energy savings improvements.

GRI Content Index

GENERAL DISCLOSURES

ORGANIZATIONAL PROFILE		
102-1	Name of the organization	Trane Technologies—In the first quarter of 2020, Ingersoll Rand Plc. separated its Industrial segment. The HVAC and transport refrigeration units of the former Ingersoll Rand became “Trane Technologies.” Note that our 2019 ESG Report covers the combined Industrial and Climate businesses known in 2019 as “Ingersoll Rand.”
102-2	Activities, products, brands, services	Form 10-K : Cover page
102-3	Location of headquarters	Form 10-K : Item 2
102-4	Location of operations	Form 10-K : Cover page and item 1
102-5	Ownership and legal forum	Form 10-K : Item 1
102-6	Markets served	Form 10-K : Item 1
102-7	Sale of organization	Form 10-K : Part 1 and Financial Performance
102-8	Information on employees and other workers	Our Employees
102-9	Supply chain	Supply Chain Transparency and Performance
102-10	Significant changes to the organization and its supply chain	Form 10-K Item 7
102-11	Precautionary Principle or approach	Environmental Health and Safety (EHS) Management
102-12	External initiatives	Charters
102-13	Membership of associations	Membership and Partnerships

STRATEGY		
102-14	Statement from senior decision-maker	Letter to Shareholders
102-15	Key impacts, risks, and opportunities	Form 10-K : Part I, Item 1A 2019 Annual Report: Non-Financial Statements
ETHICS AND INTEGRITY		
102-16	Values, principles, standards, and norms of behavior	Code of Conduct Business Partner Code of Conduct Ethics & Compliance
102-17	Mechanisms for advice and concerns about ethics	Code of Conduct Business Partner Code of Conduct Governance Ethics and Risk Management
GOVERNANCE		
102-18	Governance structure	Ethics & Compliance Our Governance
102-20	Executive-level responsibility for economic, environmental and social topics	Our Governance
102-21	Consulting stakeholders on economic, environmental and social topics	Materiality Assessment
102-22	Composition of highest governance body and its committees	Form 10-K : Corporate Governance
102-23	Chair of highest governance body	Form 10-K : Corporate Governance

GOVERNANCE CONTINUED		
102-26	Role of highest governance body in setting purpose, values and strategy	Form 10-K: Corporate Governance
102-27	Collective knowledge of highest governance body	Form 10-K: Corporate Governance
102-29	Identifying and managing economic, environmental and social impacts	Our Governance Materiality Assessment
102-32	Highest governance body's role in sustainability reporting	Our Governance Our Report and Data
STAKEHOLDER ENGAGEMENT		
102-40	List of stakeholder groups	Value Chain Materiality Assessment
102-41	Collective bargaining agreements	20.8% of employees were covered by collective bargaining agreements.
102-42	Identifying and selecting stakeholders	Value Chain Materiality Assessment
102-43	Approach to stakeholder engagement	Customer Satisfaction Value Chain Materiality Assessment
102-44	Key topics and concerns	Customer Satisfaction Value Chain
REPORTING PRACTICE		
102-45	Entities included in the consolidated financial statements	Form 10-K: Part 1 All entities are included in this report.
102-46	Defining the report content and topic boundaries	Our Report and Data Value Chain Materiality Assessment
102-47	List of material topics	Materiality Assessment

REPORTING PRACTICE CONTINUED		
102-48	Restatements of information	Our Report and Data
102-49	Changes in reporting	Our Report and Data
102-50	Reporting period	January 1 – December 31, 2019
102-51	Date of most recent report	April 2019
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	Perri Richman – Vice President, Communications; Director, Trane Technologies Charitable Foundation Email: prichman@tranetechnologies.com
102-54	Claims of reporting in accordance with the GRI standards	This report has been prepared in accordance with the GRI Standards: Core option
102-55	GRI content index	This table is the GRI Content Index
102-56	External assurance	Our Report and Data Our environmental and safety data is assured by an independent third party The assurance process is led by the vice president, environmental, health and safety, operations who reports to senior vice president, global operations and integrated supply chain

MATERIAL TOPICS

FINANCIAL PERFORMANCE		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Letter to Shareholders
103-3	Evaluation of management approach	Form 10-K: Part II, Item 7 Letter to Shareholders
201-1	Direct economic value generated and distributed	Form 10-K: Part II, Item 6 and Item 8 2019 Annual Report: 2019 Financial Performance

ENERGY		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Energy
103-3	Evaluation of management approach	Our Purpose A third party assures our energy data every year for company operations.
302-1	Energy consumption within the organization	Total fuel consumption from non-renewable and renewable sources: Energy (see data table: Direct Energy Use) Electricity, heating, cooling, steam consumption: 2019 ESG Report: Energy (see data table: Direct Energy Use) Electricity, heating, cooling, steam sold: We do not sell energy Total energy consumption: 3,720 billion KJ Standards, methodologies, assumptions and/or calculation tools used: GRI 302: Energy 2016, Disclosure 302-1 Source of factors used: EPA Climate Leaders, Emission Factors for Greenhouse Gas Inventories, 9 March 2018; Climate Change, 2013, The Physical Science Basis, Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, Chapter 8, Appendix 8.A, Table 8.A.1; 2017 Climate Registry Default Emission Factors report, Table B.2, March 15, 2017
302-2	Energy consumption outside the organization	Form 10-K : Item 1
302-3	Energy intensity	Energy Energy intensity ratio: 0.224 Organization-specific metric (the denominator): million USD Types of energy included in the intensity ratio: Fuel and electricity All energy used was consumed inside the organization

ENERGY CONTINUED		
302-4	Reduction of energy consumption	Energy Amount of reductions in energy consumption achieved through direct result of conservation and efficiency initiatives: 2.49 Types of energy included: fuel and electricity Basis for calculating reductions: 2013 Standards, methodologies, assumptions and/or calculation tools used: GRI 302: Energy 2016, Disclosure 302-4
ENERGY-EFFICIENT AND LOW-EMISSION PRODUCTS		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Energy-Efficient and Low-Emission Products
103-3	Evaluation of management approach	Our Purpose
302-5	Reductions in energy requirements of products and services	Energy-Efficient and Low-Emission Products
EMISSIONS		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Climate Change Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants
103-3	Evaluation of management approach	Our Purpose Our Report and Data A third party assures our greenhouse gas (GHG) emissions data every year. We also performed an internal audit of the product GHG collection process in early 2017.

EMISSIONS CONTINUED		
305-1	Direct (Scope 1) GHG emissions	Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants Gross direct (Scope 1) GHG emissions: 348,376 metric tons CO ₂ e Gases included in the calculation: CO ₂ , CH ₄ , N ₂ O Biogenic CO ₂ emissions: 0 Base year for the calculation: 2013 Source of emissions factors and the GWP rates used: IPCC AR5 – Climate Change 2013; EPA Climate Leaders, Emission Factors for Greenhouse Gas Inventories, March 9, 2018; 2017 Climate Registry Default Emissions Factors Report, Table B.2, March 15, 2017. Consolidated approach for emissions: Financial control Standards, methodologies, assumptions and/or calculation tools used: World Resources Institute, The Greenhouse Gas Protocol
305-2	Energy indirect (Scope 2) GHG emissions	Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants Gross location-based energy indirect (Scope 2) GHG emissions: 193,559 metric tons CO ₂ e Gross market-based energy indirect (Scope 2) GHG emissions: 193,427 metric tons CO ₂ e Gases included in the calculation: CO ₂ , CH ₄ , N ₂ O, HFCs and small quantities of HCFCs (e.g. R22) Base year for the calculation: 2013 Source of emissions factors and the GWP rates used: USA location factors: US EPA, 2016 grid, egrid2016__summarytables.xlsx, February 2015, 2018 Consolidated approach for emissions: Financial control Standards, methodologies, assumptions and/or calculation tools used: World Resources Institute, The Greenhouse Gas Protocol

EMISSIONS CONTINUED		
305-3	Other indirect (Scope 3) GHG emissions	Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants Gross other indirect (Scope 3) GHG emissions: See Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants (see data table: Scope 3 Emissions)
305-4	GHG emissions intensity	Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants GHG emissions intensity ratio: 32.65 Organization-specific metric (the denominator): Million USD Types of GHG emissions included in the intensity ratio: Scope 1 and Scope 2 Gases included in the calculation: CO ₂ , CH ₄ , N ₂ O
305-5	Reduction of GHG emissions	Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants GHG emissions reduced as a direct result of reduction initiatives: <ul style="list-style-type: none">• Scope 1: 20,422 CO₂e• Scope 2: 4,224 CO₂e Gases included in the calculation: CO ₂ , CH ₄ , N ₂ O Base year or baseline: 2013 Scopes in which reductions took place: Scope 1 and Scope 2 Standards, methodologies, assumptions and/or calculation tools used: GRI 205: Emissions 2016, Disclosure 305-5
305-6	Emissions of ozone-depleting substances (ODS)	Not applicable. We are not a manufacturer of ODS
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	Significant air emissions: Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants (see data tables: NOx and SOx Emissions; Volatile Organic Compounds Air Emissions) Source of the emissions factor used: U.S. EPA, Compilation of Air Pollution Emission Factors (AP-42), U.S. EPA Updated Emission Factors of Air Pollutants from Vehicle Operations in GREET Using MOVES; and vendor technical data sheets Standards, methodologies, assumptions and/or calculation tools used: General calculation method is material usage multiplied by emissions factor

SUPPLIER ENVIRONMENTAL CONDITIONS		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Supply Chain Transparency and Performance
103-3	Evaluation of management approach	Supply Chain Transparency and Performance
308-1	New suppliers that were screened using environmental criteria	Supply Chain Transparency and Performance
308-2	Negative environmental impacts in the supply chain and actions taken	Supply Chain Transparency and Performance
COMPANY CULTURE		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Company Culture
103-3	Evaluation of management approach	Company Culture Our Purpose
401-1	New employee hires and employee turnover	Company Culture
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Company Culture
401-3	Parental leave	Company Culture (see data table: Parental Leave Data)
TRAINING AND DEVELOPMENT		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Training and Development
103-3	Evaluation of management approach	Training and Development Our Purpose

TRAINING AND DEVELOPMENT CONTINUED		
404-1	Average hours of training per year per employee	Training and Development (see data table: Training and Development Data) Average hours of training: <ul style="list-style-type: none">• All employees: 8• Hourly employees: 7• Salaried employees: 9
404-2	Programs for upgrading employee skills and transition assistance programs	Training and Development
404-3	Percentage of employees receiving regular performance and career development reviews	Training and Development Percentage of employees receiving regular performance and career development reviews: 97%
DIVERSITY AND INCLUSION/BOARD OVERSIGHT/EQUAL REMUNERATION		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Diversity and Inclusion
103-3	Evaluation of management approach	Diversity and Inclusion Our Purpose
405-1	Diversity of governance bodies and employees	Diversity and Inclusion Our Employees Our Governance
PUBLIC POLICY		
103-1	Explanation of material topic and its boundaries	Materiality Assessment Value Chain
103-2	The management approach and its components	Public Policy Advocacy and Compliance
103-3	Evaluation of management approach	Public Policy Advocacy and Compliance
415-1	Political contributions	Public Policy Advocacy and Compliance (see data table: Political Advocacy and Contributions)

TECHNOLOGY AND INNOVATION		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Technology and Innovation
103-3	Evaluation of management approach	Technology and Innovation
N/A	Technology and innovation	Technology and Innovation
ACCESS TO COOLING AND COMFORT		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Social Impacts of Our Products
103-3	Evaluation of management approach	Social Impacts of Our Products
N/A	Access to cooling and comfort	Social Impacts of Our Products
INNOVATION FOR EMERGING MARKETS		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Technology and Innovation
103-3	Evaluation of management approach	Technology and Innovation
N/A	Innovation for emerging markets	Technology and Innovation
PRODUCT LIFE CYCLE		
103-1	Explanation of material topic and its boundaries	Value Chain Materiality Assessment
103-2	The management approach and its components	Product Life Cycle and Materials
103-3	Evaluation of management approach	Our Purpose We set 2020 Targets related to the product life cycle. We measure these goals annually to ensure we are on track
N/A	Product life cycle	Product Life Cycle and Materials

SASB Disclosure

Our 2019 ESG Report marks Ingersoll Rand's second time reporting to the SASB framework. As a diversified industrial manufacturer, the nature of our business does not fit squarely within one industry as defined by the [Sustainable Industry Classification System](#). Our reporting process considered the standards for the [Electrical & Electronic Equipment](#) and [Industrial Machinery & Goods](#) industries. We used SASB's [five-factor test](#) of interest to a reasonable investor to determine which topics are material to our business.

TOPIC	ACCOUNTING METRIC	CATEGORY	UNIT OF MEASURE	CODE	RESPONSE
Accounting Metrics	Number of products produced by category	Quantitative	Number	RT-EE-000.A; RT-IG-000.A	Proprietary
	Number of employees	Quantitative	Number	RT-EE-000.B; RT-IG-000.B	47,178 employees
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	RT-EE-130a.1; RT0203-01	3,720 billion KJ energy consumed; 84% grid electricity; 16% renewable
Product Life cycle Management	Percentage of products by revenue that contains IEC 62474 declarable substances	Quantitative	Percent (%) by revenue	RT-EE-410a.1	Data not available
	Percentage of eligible products, by revenue, that meet Energy Star® criteria	Quantitative	Percent (%) by revenue	RT-EE-410a.2	35% of shipments
	Revenue from renewable energy-related and energy efficiency-related products	Quantitative	Reporting currency	RT-EE-410a.3	Approximately 25% revenue from products and services that contribute to the clean energy transition we ranked #66 on Corporate Knights Clean200

TCFD Disclosure

Our commitment to addressing climate change is more than a duty or a growth strategy. It is the filter we apply to every single decision we make.

We strongly support the Task Force on Climate-related Financial Disclosures (TCFD), which launched to help companies understand, measure and respond to climate change risks and opportunities. This year, we expanded our reporting to include information and voluntary disclosures that are aligned with TCFD’s [final recommendations report](#).

RECOMMENDED DISCLOSURE	SOURCE	COMMENT/DISCLOSURE
GOVERNANCE		
a) Describe the board's oversight of climate-related risks and opportunities.	2019 ESG Report	Our Governance
	2019 CDP Climate Change Survey: Question C1.1a	Question C1.1a: Sustainability and climate change risks are a formal responsibility of our Board of Directors' Corporate Governance and Nominating Committee. The Committee sets the strategic direction for Ingersoll Rand's sustainability approach and is responsible for overseeing our carbon footprint and environmental health and safety performance. The committee meets twice annually to evaluate the company's sustainability performance and is informed regularly by the company's SVP of innovation and Chief Technology Officer. The CTO has the role of providing these and other updates to this Committee on a regular basis. The use of our products is our single largest source of greenhouse gas emissions, consequently our innovative solutions for buildings, transportation markets and industrial processes have the potential for greatest impact on climate change as such, both Innovation and Ingersoll Rand's sustainability office report directly to our Senior Vice President of Innovation and Chief Technology Officer (CTO).
b) Describe management's role in assessing and managing climate-related risks and opportunities.	2019 CDP Climate Change Survey: Questions C1.2 and C1.2a	Question C1.2: Within the C-suite, CTO has responsibility for both assessing and managing climate-related risks and opportunities. On a half-yearly basis, the CTO reports to the board on climate-related issues. Question C1.2a: The CTO reports to the CEO and Chairman of the Board. Since the use of our products is our single largest source of GHG emissions, our innovative solutions for buildings, transportation markets and industrial processes have the potential for the greatest impact on climate change. Ingersoll Rand's sustainability office reports directly to the SVP of Innovation and the CTO. The CTO also works with business leadership teams and serves on various boards and advisory councils, including The Alliance to Save Energy, to accelerate global innovation and technology-led growth strategies. Our CTO is the sponsor of our Internal Sustainability Strategy council, which governs best practices. Product GHG is a metric on the CTO's goals, monitored quarterly and annually.

RECOMMENDED DISCLOSURE	SOURCE	COMMENT/DISCLOSURE
STRATEGY		
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.	2019 Annual Report	Cautionary Statement for Forward Looking Statements, Non-Financial Statements – European Union Directive and Form 10-K
	2019 ESG Report	Public Policy Advocacy and Compliance, Climate Change , Energy-Efficient and Low Emissions Products and Technology and Innovation
	2019 CDP Climate Change Survey: Questions C2.3a and C2.4a	Question C2.3a: Ingersoll Rand has identified climate-related risks with the potential to have a substantive financial or strategic impact on the business including: transition risk from mandates on and regulation of existing products and services; physical risk from increased severity of extreme weather events; and transition risk from increased cost of raw materials. Question C2.4a: Increasing demand for energy efficiency, changing weather patterns and growing urban populations create product and service development opportunities for our business. For example, HVAC and lighting systems are a great opportunity to reduce energy consumption in commercial, industrial and residential buildings – which account for nearly half of global energy consumption.

RECOMMENDED DISCLOSURE	SOURCE	COMMENT/DISCLOSURE
STRATEGY CONTINUED		
b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	2019 Annual Report	Item 1A, Risk Factors and Non-Financial Statements – European Union Directive
	2019 ESG Report	Public Policy Advocacy and Compliance, Energy-Efficient and Low Emissions Products and Technology and Innovation
	2019 CDP Climate Change Survey: Questions C2.5, C2.6 and C3.1c	<p>Question C2.5: Describes where and how identified risks and opportunities have impacted the business. For example, Ingersoll Rand has made investments that enable the company to phase out today's high global warming potential HFCs ahead of regulatory requirements. We work proactively with government agencies and refrigerant suppliers to help identify alternatives and facilitate a practical transition that reduces GHG emissions as early as possible. We also participate in international forums, such as the United Nations Framework Convention on Climate Change and the Montreal Protocol, to help create an organized approach to global refrigerant transitions.</p> <p>Question C2.6: Describes where and how the identified risks and operations have factored into the financial planning process. For example, energy costs and costs to transition to lower GWP refrigerants are factored into annual operating budgets.</p> <p>Question C3.1c: Explains how climate-related issues are integrated into business objectives and strategy. For example, we have committed to a \$500m investment in product-related research and development from 2015–2020 to fund the long-term reduction of GHG emissions. The commitment encompasses our entire product portfolio and includes refrigerant and energy efficiency initiatives. In 2015, we launched the Ingersoll Rand EcoWise portfolio of products; the EcoWise endorsement is given to products with next-generation, low global warming potential (GWP) refrigerants and high efficiency operation. Aspects of climate change have also influenced our strategy. Energy demand and energy efficiency regulations are transforming how commercial buildings are built and how they operate.</p>

RECOMMENDED DISCLOSURE	SOURCE	COMMENT/DISCLOSURE
STRATEGY		
c) Describe the potential impact of different scenarios, including a 2°C scenario, on the organization's businesses, strategy and financial planning.	2019 CDP Climate Change Survey: Questions C3.1a and C3.1d	<p>Question C3.1a: Ingersoll Rand uses qualitative climate-related scenario analysis to inform our business strategy.</p> <p>Question C3.1d: We regularly perform scenario assessments to determine product strategy with respect to climate-related drivers such as greenhouse gas emissions and energy efficiency. These scenario assessments are done at the business unit level and incorporate standard work.</p> <p>Pursuing scenario assessments has led to new product development and technology projects to explore new solutions and changes in strategy. We made a global commitment to reduce the refrigerant-related footprint of our products by 50% by 2020 and committed to investing \$500 million in the research and development of new technologies to facilitate a transition to next-generation refrigerants and high efficiency operations.</p>
RISK MANAGEMENT		
a) Describe the organization's process for identifying and assessing climate-related risks.	Materiality Assessment	We perform a materiality assessment every 3 to 4 years to assess relevant sustainability topics, including those related to climate change. Risks are evaluated and ranked based on impact and importance to the company and stakeholders.
	2019 CDP Climate Change Survey: Question C2.2b	<p>Question C2.2b: At the company level, Ingersoll Rand has adopted the Enterprise Risk Management (ERM) Integrated Framework, a three-dimensional approach, considering objectives, risk components and all layers of the organization across the board and for the ones which apply specifically to certain business units (Asset level). Risk objectives and risk components have been identified for strategic, operational, financial and compliance risks with a corresponding control mechanism which allows management to respond according to the particular risk or opportunity, including specifically climate change and other resource-related topics.</p> <p>At the asset level, ERM provides guidance and direction for integrating the enterprise risk management with the major business processes. The Internal Sustainability Strategy Council represents the functions and businesses globally and meets quarterly to review progress against all sustainability targets, including greenhouse gas emissions of our operations and products. This Council has accountability for monitoring risks associated with climate change. Under ERM, we have developed a Risk Assessment mapping which correlates risk related to innovation, climate change and our supply chain based on vulnerability, impact and likelihood.</p>

RECOMMENDED DISCLOSURE	SOURCE	COMMENT/DISCLOSURE
RISK MANAGEMENT CONTINUED		
b) Describe the organization's processes for managing climate-related risks.	2019 Annual Report	Non-Financial Statements – European Union Directive
	2019 ESG Report	Climate Change, Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants, Energy-Efficient and Low Emissions Products and Water
	2019 CDP Climate Change Survey: Questions C2.2c and C2.2d	<p>Question C2.2c: All relevant climate-related risks—including current and emerging regulation, technology, reputation, acute and chronic physical risks and downstream risks—are integrated into Ingersoll Rand's materiality assessment and Enterprise Risk Management Integrated Framework.</p> <p>Question C2.2d: Climate-related risks are managed through the Enterprise Risk Management (ERM) Committee through a quarterly review process of priority risks. Both climate-related risks and opportunities are managed at the enterprise level by the Internal Sustainability Strategy Council which meets quarterly to review progress against all sustainability targets, including greenhouse gas emissions of our operations and products. This Council has accountability for sustainability best practices.</p>
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	2019 CDP Climate Change Survey: Question C2.2	Question C2.2: Climate-related risks are integrated into multidisciplinary company-wide risk identification, assessment and management processes.
METRICS AND TARGETS		
a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	2019 ESG Report	Climate Change, Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants, Energy-Efficient and Low Emissions Products
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	2019 ESG Report	Greenhouse Gas Emissions, Pollutant Emissions and Refrigerants , and GRI Content Index

RECOMMENDED DISCLOSURE	SOURCE	COMMENT/DISCLOSURE
METRICS AND TARGETS CONTINUED		
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	2019 ESG Report	Climate Change and Our Purpose
	2019 CDP Climate Change Survey: Questions C4.1, C4.1a and C4.1b	<p>Question C4.1: We have targets for both absolute emissions and emissions intensity.</p> <p>Question C4.1a and C4.1b: Our combined absolute and intensity targets constitute an approved science-based target. Absolute Emissions Target, Scope 3 (Use of Products): In September 2014 we announced our 2020 Climate Commitment. We committed to reducing the refrigerant footprint of our products by 50% by 2020 (Dec. 31, 2019) with a baseline of 2013. Emissions Intensity Target, Scope 1+2 (location-based): As part of our 2020 Climate Commitment, in 2014, Ingersoll Rand committed to reducing Scope 1+2 emissions 35% from a 2013 baseline.</p>



About Trane Technologies

Trane Technologies is a global climate innovator. Through our strategic brands Trane and Thermo King, and our environmentally responsible portfolio of products and services, we bring efficient and sustainable climate solutions to buildings, homes and transportation.

www.tranetechnologies.com