



# Accelerating action for impact

2023 ESG Report



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# Introduction

## Accelerating action for impact

As a pioneer in climate innovation, we are changing how the world uses heating and cooling solutions on a global scale. Propelled by our purpose to boldly challenge what's possible for a sustainable world, we are leading our industry and setting the standard for progress in addressing global challenges.

Our environmental, social and governance (ESG) report highlights the actions we take to manage and address opportunities where we can have the most significant impact. We are proud to report the meaningful advancements we've made toward our 2030 Sustainability Commitments and share the sustainable solutions we continue to provide our customers.

This report aligns with leading ESG and sustainability reporting frameworks and covers our 2023 enterprise-wide information and data for Trane Technologies, unless otherwise noted.

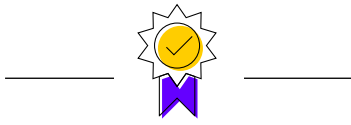
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[CEO & CSO Letters to Stakeholders](#) →

[Awards & rankings](#) →



# 2023 environmental, social & governance highlights



### Key awards

**A**

CDP Climate Change 2023 Annual Score



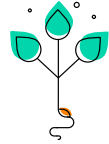
3rd year listed on the World Index; 13th year on North American Index



Ranked 56th on the JUST 100 List  
Industry Rank: 1st in the Building Materials & Construction industry

### The Gigaton Challenge

We are reducing 1 gigaton (1 billion metric tons) of carbon emissions (carbon dioxide equivalent [CO<sub>2</sub>e]) from our customers' footprint by 2030

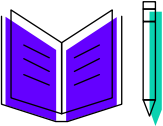


**157M**

metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e) reduced from our customers' carbon footprint since 2019, in contribution to our Gigaton Challenge

### Learning & development

We invest in our workforce and help them advance their careers with our innovative learning programs

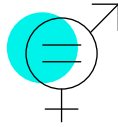


**39%**

increase in tuition support participation compared to prior year after changing the program from tuition reimbursement to advancement

### Diverse representation

Our ambition is to increase diversity in our workforce so that it is representative of the communities we serve



**25.2%**

of all management positions are held by women

**37.2%**

of our U.S. workforce identifies as racially or ethnically diverse

### Investing in a sustainable future

We are investing in communities by expanding volunteerism throughout our organization



**92,517**

hours volunteered by our team members in 2023; a 192% increase from our 2019 baseline year

### Leading by example

We committed to achieving 10% absolute reduction in energy consumption by 2030

Our commitment to design for circularity guides our strategic decisions to use recycled materials, repair, reuse, remanufacture and recycle throughout our processes



**4%**

absolute energy reduction since 2019, even as demand and production increased

**1M+**

heating, ventilation and air conditioning (HVAC) units made with low-carbon steel were shipped to homes, schools and data centers across the United States



# CEO Letter to Stakeholders

GRI 2-22

Dear Stakeholders,

In 2023, Trane Technologies achieved yet another year of very strong financial performance while delivering on our bold sustainability commitments. The urgent need for climate action is clear — and so is our purpose to boldly challenge what’s possible for a sustainable world.

## Leading financial performance

Our strong results in 2023 build on our track record of leading financial performance, with another year of record bookings, 9% organic revenue growth\* and our third consecutive year of more than 20% adjusted earnings per share (EPS) growth\*. Customer demand is exceptional and growing, as reflected in our Commercial HVAC backlog, which has nearly tripled in the past three years. Finally, we generated powerful free cash flow\* of \$2.2 billion in 2023, or 103% of adjusted net earnings, supporting our balanced capital allocation strategy.

## Accelerating innovation

We are relentlessly investing in sustainable innovation to reduce energy use and carbon emissions.

Examples include our Trane® thermal management systems, which can simultaneously heat and cool and are three to four times more efficient than traditional methods. Our custom, high-efficiency chillers are reducing energy use in data centers and high-tech industrials. Our high-efficiency residential air conditioners and heat pumps offer industry-leading variable speed technology and Trane® Link™ connected systems that make installation, maintenance and service smarter.

In transport, our new Thermo King® all-electric Advancer trailer refrigeration unit can adapt to a variety of power sources, including axle power, and operates with zero direct emissions.

We are also reducing the carbon footprint of our own operations — from installing our own HVAC technology to powering our facilities with renewable energy and reducing embodied carbon in our supply chain.

## Culture drives growth

Our strong performance is made possible by our people and our uplifting culture. We continue to perform in the top quartile in employee engagement across all industries according to our external benchmark.

We are investing in innovative ways to recruit, develop and retain talent for the future, such as our Technician Apprenticeship Program accredited by the U.S. Department of Labor. We continue to cultivate diversity and inclusion across our enterprise, including with our Board of Directors, where we have reached gender parity.

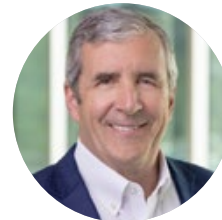
## Building a sustainable future

We are uniquely positioned to lead. With our purpose-driven strategy, relentless innovation and uplifting culture, we are well positioned to continue to deliver differentiated shareholder returns over the long-term. The end result is strong value creation across the board — for our customers, our shareholders, our people and the planet.



**Dave Regnery**

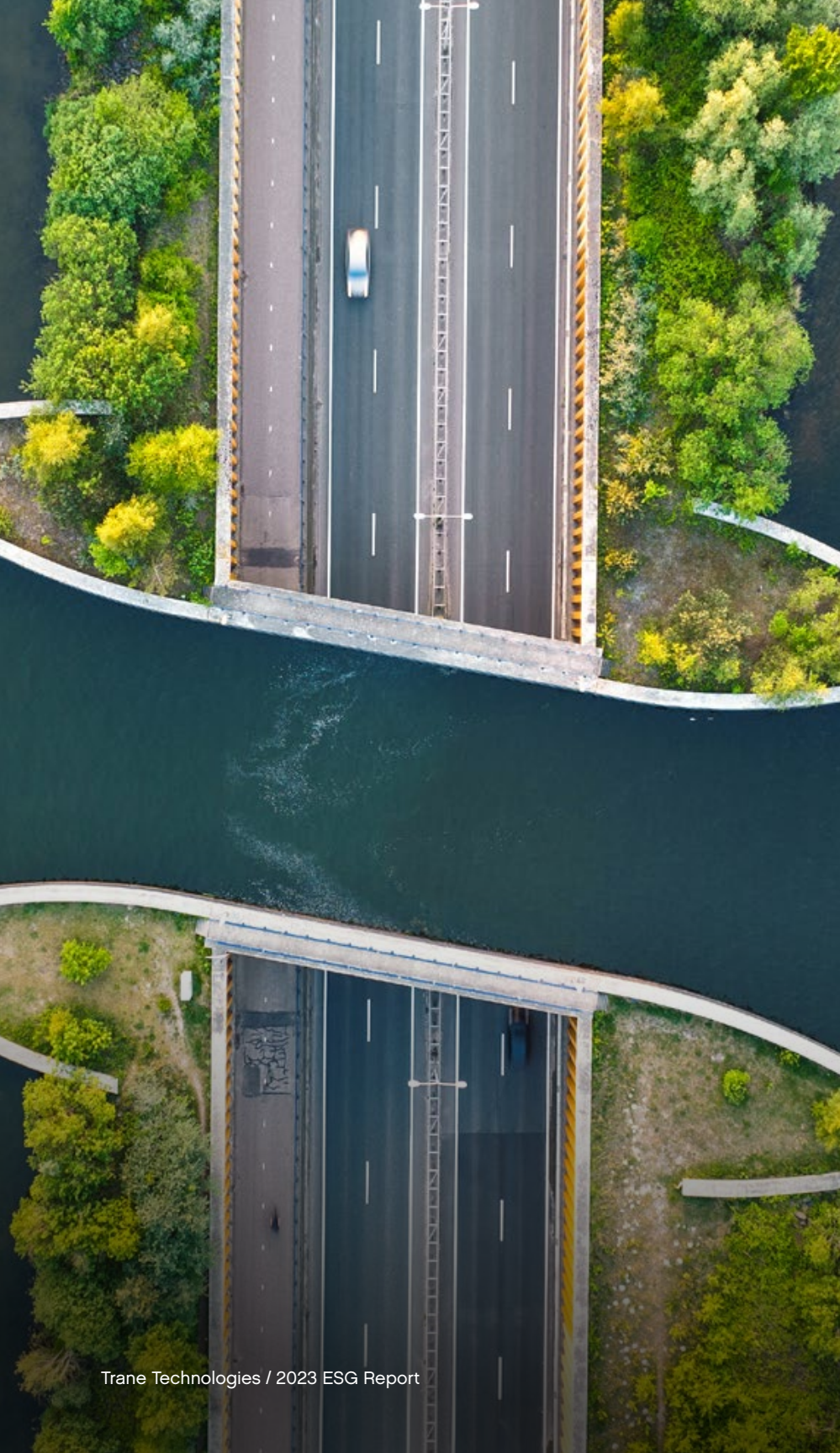
Chair and CEO  
Trane Technologies



\*These are non-GAAP financial measures. Reconciliation of non-GAAP financial measures can be found preceding the 2024 Notice and Proxy Statement in Trane Technologies' Annual Report.







INTRODUCTION

# About our report

Each year, we publish our ESG Report to share our progress and inspire others. It's a comprehensive, framework-aligned set of data<sup>1</sup> that provides transparency and accountability. It's also a story about the people at our company taking action toward a more sustainable future, reflecting our shared belief in our ability to have a meaningful impact, which remains a driving force of our competitive advantage.

For more than a decade, sustainability has been at the center of our business strategy and integrated into every aspect of our business operating system. This includes the investments and decisions we make based on the significant environmental and social areas of importance for our company, and how we innovate and grow.

Our global team continues to lead the way by making sure that we operate our facilities as efficiently as possible. Our focus on the safety and development of our people and engagement with our communities remains a hallmark of our culture. And our climate goals are transformative, set from aggressive baselines, aligned with science-based targets and recognized for credibility. Even with a leading position in climate action and transparency, and strong financial results, we continuously strive to push ourselves and drive the entire industry forward.

2023 was the hottest year on record, underscoring the need for clean technologies to be deployed at scale and in a way that improves life for everyone. Our purpose has never been clearer, and we are privileged to lead.

**Paul S. Camuti**

Chief Technology & Sustainability Officer  
Trane Technologies



<sup>1</sup> Read more about the [data](#) presented within our 2023 ESG Report.

## Reporting our progress

Our annual ESG Report aligns with leading ESG and sustainability reporting frameworks. Learn more in the [Data & frameworks](#) section.



**Global Reporting Initiative (GRI):** We report in accordance with the GRI Standards. See our [GRI content index](#).



**Sustainability Accounting Standards Board (SASB):** As a diversified manufacturer, we report to both the Electric & Electronic Equipment and the Industrial Machinery & Goods industries. See our [SASB content index](#).



**Task Force on Climate-related Financial Disclosures (TCFD):** We align with the Task Force's voluntary disclosures. See our [TCFD content index](#).



**World Economic Forum (WEF) Stakeholder Capitalism Metrics:** We disclose our performance against the WEF's Stakeholder Capitalism Metrics. See our [WEF content index](#).



**United Nations Sustainable Development Goals (UN SDGs):** We identify the UN SDGs on which we can have the most meaningful impact. Learn about our ambitions in the [United Nations Sustainable Development Goals](#) section.



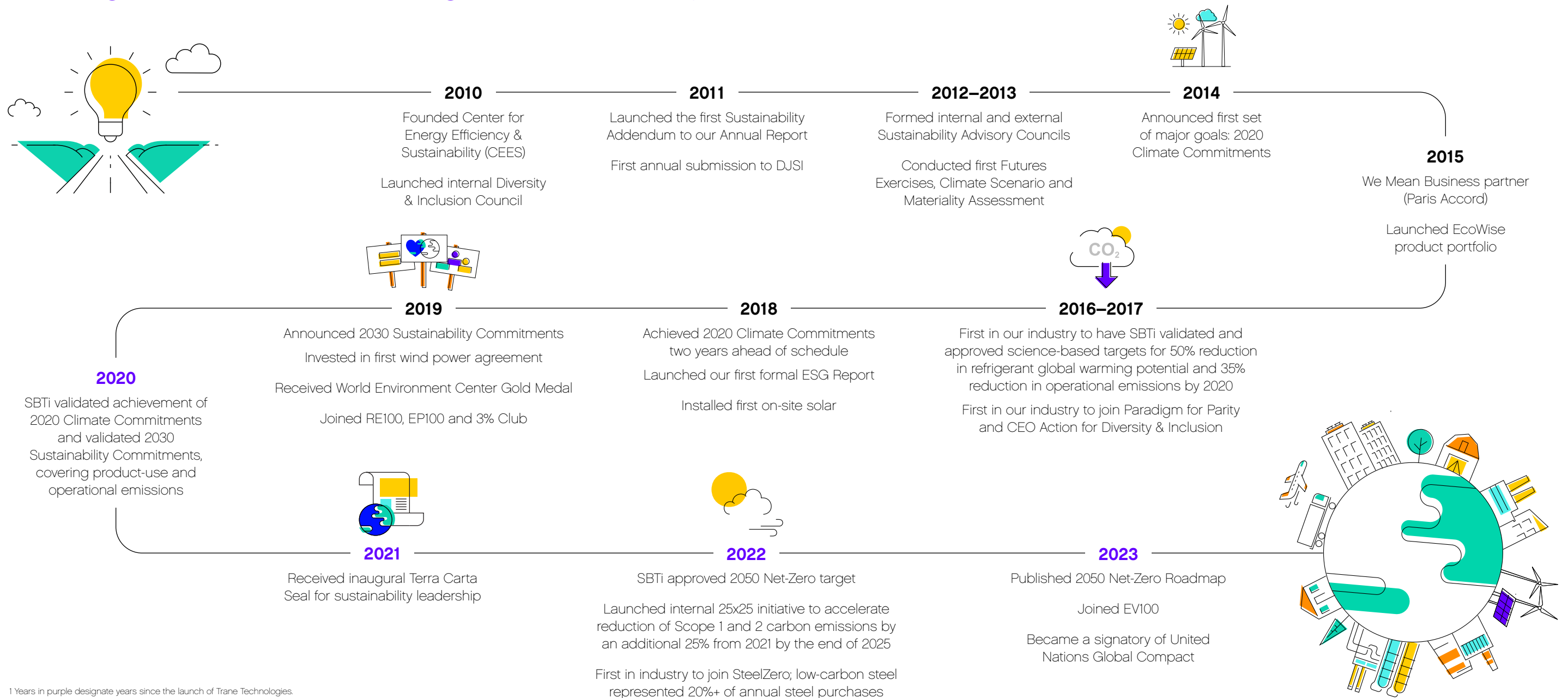
**CDP:** We voluntarily respond to CDP's [Climate Change](#) and [Water](#) questionnaires.



**United Nations Global Compact (UNGC):** We align our operations and strategy with the universally accepted Ten Principles outlined by UNGC in the areas of human rights; Environment, Health and Safety; and anti-corruption. See our Global Compact status [here](#).



# Driving performance through sustainability<sup>[1]</sup>



<sup>1</sup> Years in purple designate years since the launch of Trane Technologies.



# Awards & rankings

We are proud to share our awards and ratings for our industry-leading sustainability performance from some of the world's top organizations.



## Dow Jones Sustainability Index

- 13th consecutive year on North America Index, 3rd consecutive year on World Index



## Just Capital

- Ranked 56th on the JUST 100 List
- Industry Rank: 1st in the Building Materials & Construction industry



## Influence Map

- Ranked in the top 27 globally in the [2023 Corporate Climate Policy Engagement Leaders report](#)



## CDP<sup>[1]</sup>

- Climate score: A, for 2nd consecutive year
- Water score: B, for the 4th consecutive year

<sup>1</sup> CDP scores include letter grades A to D-. Over 15,000+ companies scored.



## Ethisphere<sup>®</sup> Institute: World's Most Ethical Companies<sup>®[2]</sup>

- Recognized as one of the 2024 World's Most Ethical Companies<sup>®</sup>

<sup>2</sup> World's Most Ethical Companies<sup>®</sup> and "Ethisphere" names and marks are registered trademarks of Ethisphere LLC.

## FTSE4Good

- 9th consecutive year (4th as Trane Technologies)
- 71% higher score than industrial industry percentile rank

## Road to Zero Emissions — As You Sow

- One of four companies awarded an "A" grade out of 100 global companies

## Corporate Knights

- Ranked 23rd on the Corporate Knights 2024 Global 100

## EcoVadis

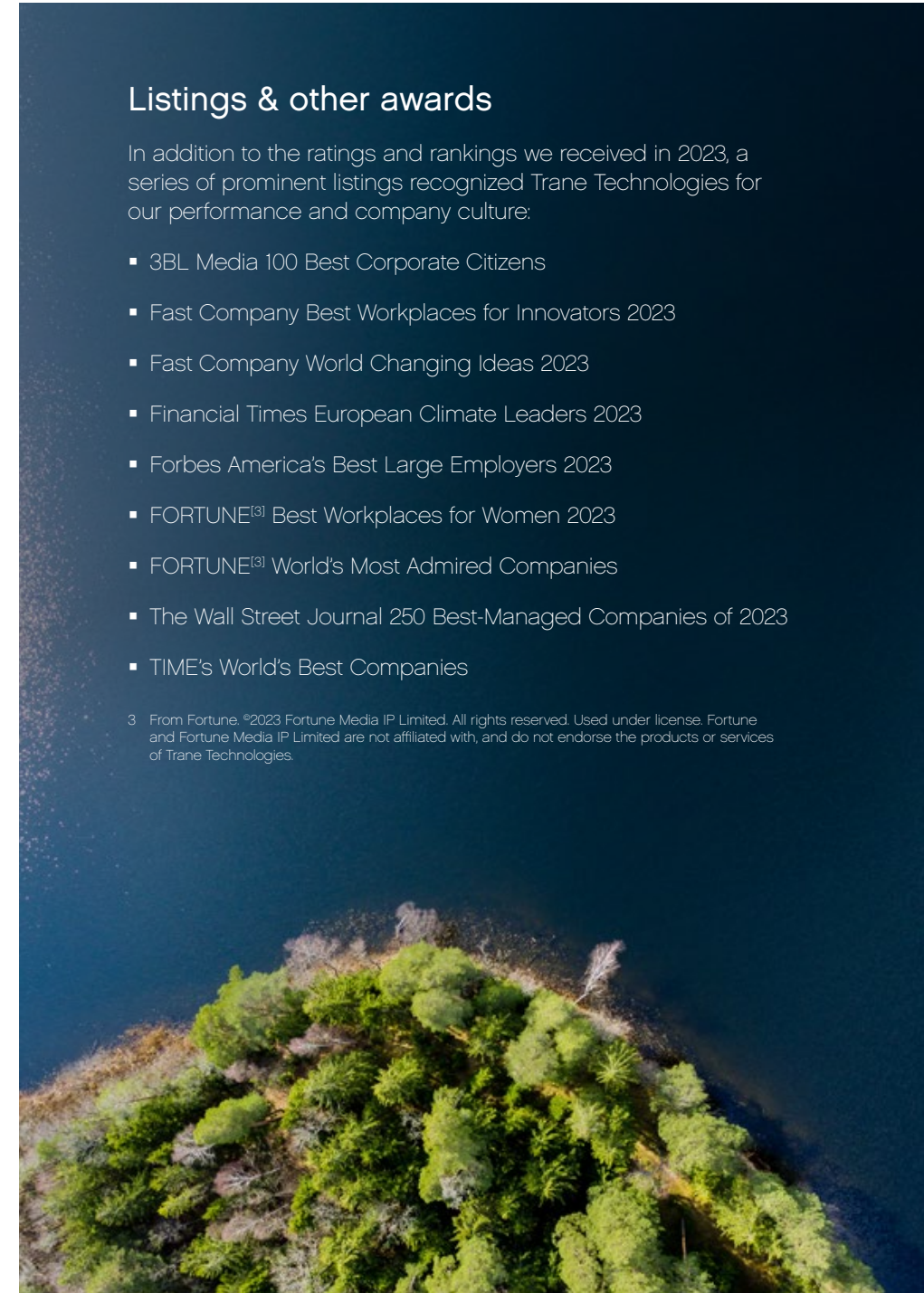
- 97th percentile; Gold Medal award winner
- 74/100 advanced overall score

## Listings & other awards

In addition to the ratings and rankings we received in 2023, a series of prominent listings recognized Trane Technologies for our performance and company culture:

- 3BL Media 100 Best Corporate Citizens
- Fast Company Best Workplaces for Innovators 2023
- Fast Company World Changing Ideas 2023
- Financial Times European Climate Leaders 2023
- Forbes America's Best Large Employers 2023
- FORTUNE<sup>[3]</sup> Best Workplaces for Women 2023
- FORTUNE<sup>[3]</sup> World's Most Admired Companies
- The Wall Street Journal 250 Best-Managed Companies of 2023
- TIME's World's Best Companies

<sup>3</sup> From Fortune. ©2023 Fortune Media IP Limited. All rights reserved. Used under license. Fortune and Fortune Media IP Limited are not affiliated with, and do not endorse the products or services of Trane Technologies.





# Ambitions

We take bold steps to lead our industry because we believe in our power to shape a sustainable future. We relentlessly invest in innovation to advance our ambitious commitments. Our pioneering teams take action every day to make a positive impact on our planet.

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[Sustainability Commitments](#) →

[Gigaton Challenge](#) →





## AMBITIONS

# Sustainability Commitments

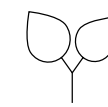
At Trane Technologies, we recognize that our business activity contributes to climate change. We believe every business, including our own, should help mitigate negative environmental impacts. We use the latest climate science to inform our mitigation strategies and challenge ourselves to shape a better world.

## The three pillars of our 2030 Sustainability Commitments

We organized our Commitments into three pillars: the Gigaton Challenge, Leading by Example and Opportunity for All. Our commitments guide our climate actions, innovation and Diversity & Inclusion initiatives to help us build a more sustainable future. We track and publicly report our progress to hold ourselves accountable to these commitments. We also engage an independent third party to assure the product use emissions data we collect as part of our Gigaton Challenge pillar and select environmental, health and safety (EHS) data we collect as part of our Leading by Example pillar, as seen in our [2023 Limited Assurance Report](#).

Learn more about our 2030 Sustainability Commitments on our [website](#).

### Our Leadership Principle

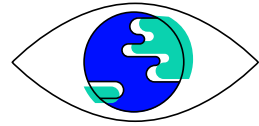


We work today for a sustainable tomorrow.



## 2030 Sustainability Commitments

We have set goals for 2030 that are aligned with multiple [United Nations Sustainable Development Goals](#) to drive progress toward creating a more sustainable future. Our 2030 Sustainability Commitments cover our entire value chain and use our technology and innovation expertise to address global challenges that affect the communities where we work and live. Along with science-based targets for our emission reduction commitments, we track our 2030 goals in three focus areas as noted below. You can download overviews of our [2030 Sustainability Commitments](#) and the [Gigaton Challenge](#).

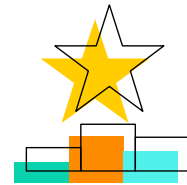


### GIGATON CHALLENGE

- Reduce customer carbon footprint by **1 gigaton<sup>[1]</sup>**
  - ✓ Accelerate clean technologies that heat and cool buildings in sustainable ways
  - ✓ Increase energy efficiency in buildings, homes, and transport environments
  - ✓ Reduce food loss in the global cold chain
  - ✓ Transition out of high-Global Warming Potential Refrigerants — ahead of regulation
- Provide access to comfort and fresh food

Our Gigaton Challenge rallies our team members to innovate to reduce our Scope 3 emissions and address global challenges related to climate change. Read more about the [Gigaton Challenge](#).

1. 1 billion metric tons of carbon emissions (mtCO<sub>2</sub>e), compared to a 2019 baseline.

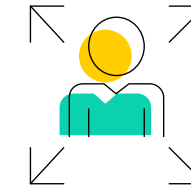


### LEADING BY EXAMPLE

- Achieve carbon neutral operations
- Deliver zero waste to landfills
- Become net-positive with water use in water-stressed locations
- Reduce absolute energy consumption by 10%<sup>[2]</sup>
- Design systems for circularity

We lead our industry in responsible operations and encourage our suppliers to follow. Read more about our approach to [Greenhouse gas emissions](#), [Waste](#), [Water](#), [Circularity](#) and [Energy](#).

2. Compared to 2019 baseline.



### OPPORTUNITY FOR ALL

- Achieve workforce diversity reflective of our communities
- Achieve gender parity in leadership and management roles
- Maintain world-class safety metrics
- Provide market-competitive wages, benefits and leading wellness offerings for our workforce
- Invest \$100 million in building sustainable futures for under-represented communities
- Dedicate 500,000 employee volunteer hours in our communities

We create new possibilities and a better world for our people and our communities. Read more about our approach to [Diversity & Inclusion](#), our [Global Workforce](#), [Safety](#) and [Corporate Citizenship](#).



## Our science-based targets

In 2022, we demonstrated our bold ambitions by becoming the first in our industry — and one of the first companies across all sectors — to set a long-term net-zero target approved by the Science Based Targets initiative (SBTi). Our science-based targets align with the Paris Agreement’s net-zero targets, which limit global temperature rise to no more than 1.5°C.

Our near-term science-based targets for Scope 1, 2 and 3 guide our emissions reduction efforts through 2030. As we take steps to meet our near-term goals, we also work toward achieving our long-term goal of net-zero emissions by 2050.

### NEAR-TERM: OUR 2030 TARGETS

- Within our own operations, we commit to reducing Scope 1 and 2 absolute greenhouse gas (GHG) emissions by 50% below 2019 levels by 2030.
- To tackle our largest area of impact — customer use of our products — we commit to reducing Scope 3 GHG emissions by 55% per thermal ton below 2019 levels by 2030.

### LONG-TERM: OUR 2050 TARGET

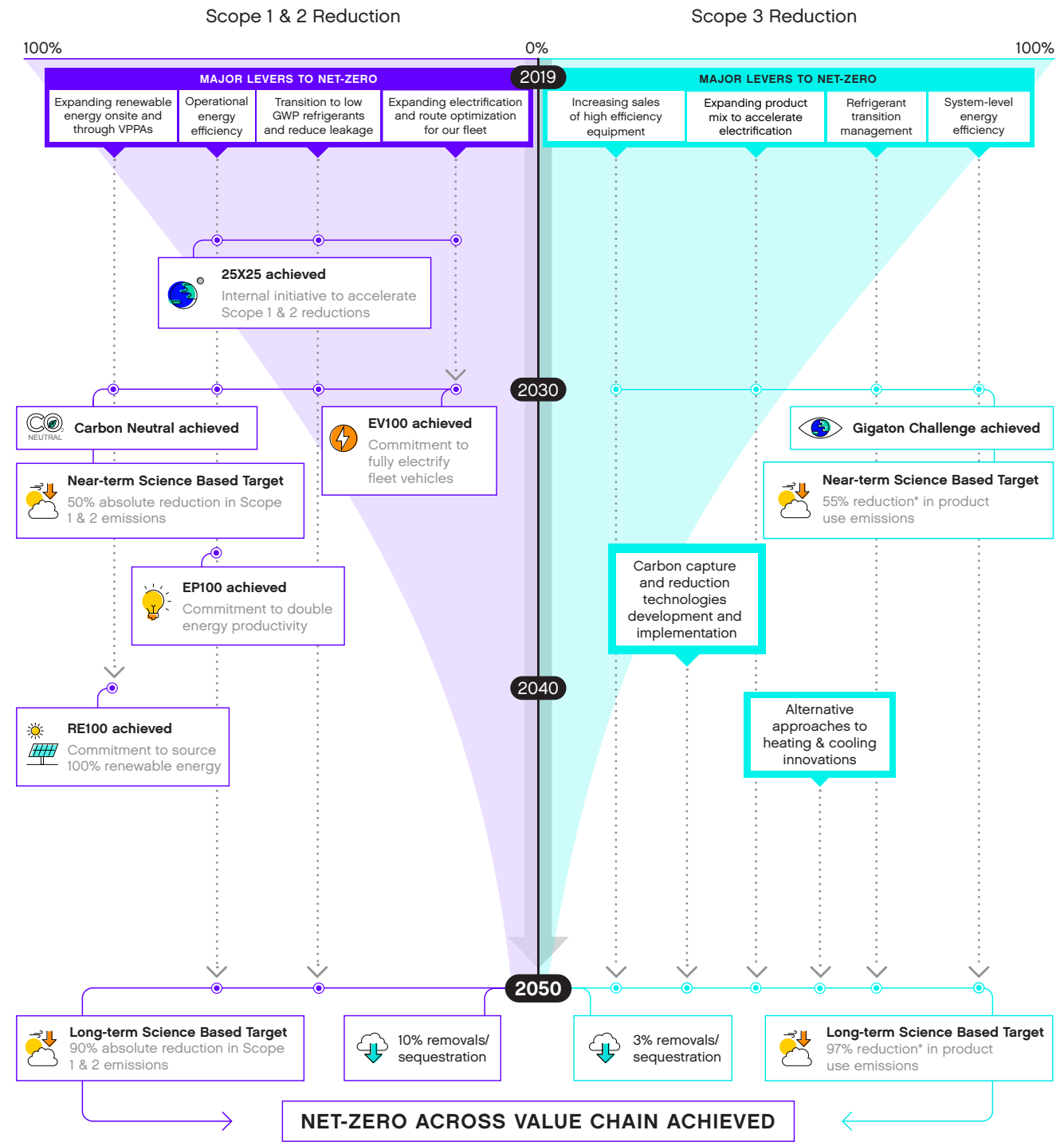
- We are committed to a 2050 net-zero target in alignment with the latest guidance from the United Nations Framework Convention on Climate Change Race to Zero campaign. With a net-zero target approved by the SBTi, Trane Technologies commits to reaching net-zero GHG emissions across our value chain by 2050.
- We plan to continue reduction efforts and invest in carbon sequestration technologies across all scopes to achieve our long-term goal of net-zero emissions by 2050.

## Net-Zero roadmap

Our Net-Zero roadmap represents Trane Technologies’ decarbonization transition plan to achieve net-zero emissions across our value chain by 2050.

Within our roadmap, our near-term science-based targets and our climate commitments guide our reduction of Scope 1 and 2 emissions. Our Scope 1 and 2 reduction efforts have allowed us to make progress toward our internal decarbonization goals and external climate commitments, including EV100, EP100 and RE100. Read more about our internal initiative to accelerate the reduction of GHG emissions (Scope 1 and 2) by 25% by 2025 (from a 2021 baseline) in the [Greenhouse gas emissions](#) section.

## Net-Zero 2050 Roadmap







**EMBEDDING SUSTAINABILITY**

**People-powered**

At Trane Technologies, we integrate sustainability into every role and function to meet our 2030 Sustainability Commitments and deliver innovative solutions for our customers. In fact, every salaried team member is encouraged to have a sustainability focused goal in their annual performance objectives.

Throughout this report, we feature stories on specific teams across our organization to showcase the sustainability considerations they embed in everyday activities.

In addition to embedding sustainability throughout our internal functions, Trane Technologies collaborates with external organizations who help us accelerate progress. Read more about our [Charters & partnerships](#).

**Progress toward 2030 Sustainability Commitments**

We track and publicly report our progress toward our sustainability commitments. We have received limited assurance by an independent third party on the product use emissions data included in the Gigaton Challenge pillar and select environmental, health and safety (EHS) data we collect as part of our Leading by Example pillar, as seen in our [2023 Limited Assurance Report](#).

**Gigaton Challenge** KEY: ▲+ Tracking ahead ▲ Progressing toward goal — Acceleration needed ▼ Behind goal

Sustainable Development Goal	2030 goal	Targets	Performance indicators	Progress through 2023
	Significantly reduce customer carbon footprint	Reduce customer carbon footprint by 1 gigaton (or 1 billion mtCO <sub>2</sub> e).	Reduced customer carbon footprint by 157 million mtCO <sub>2</sub> e since 2019.	▲+
	Provide access to comfort and fresh food	Innovate and commercialize low-cost sustainable products for developing markets <sup>1</sup> we don't currently serve.	Approximately 100 new products launched each year since 2020.	▲

<sup>1</sup> Developing markets are defined by cross-functional teams' regular participation in emerging technology research and development, regular connections with our customers and the markets' performance.

**Leading by Example**

Sustainable Development Goal	2030 goal	Targets	Performance indicators	Progress through 2023
	Achieve carbon neutral operations	Continue to reduce our carbon emissions and offset any remaining carbon emissions with Carbon Credits.	Reduced operational emissions intensity for Scope 1 and Market-based Scope 2 by 59% vs 2019.	▲+
	Design systems for circularity	Targets across product life cycle stages.	In 2023, we launched a new Design for Sustainability and Circularity module as part of our product development process, and met our commitment for low-carbon steel to represent 20% of annual use.	▲
	Reach zero waste disposed of in landfills	Eliminate waste entering landfills through reducing, reusing and recycling.	Achieved 39 locations operating as zero waste to landfill in 2023, including 85% of our manufacturing facilities; decreased non-hazardous waste to landfill by 66% vs 2019. <sup>1</sup>	▲+
	Achieve net-positive water use in water-stressed locations	Reduce our water consumption and improve water quality and access to clean water in stressed areas.	Reduced water usage by 26% versus our 2019 baseline in areas classified as water-stressed.	▲
	Achieve 10% absolute reduction in energy consumption	Reduce our absolute energy through energy reduction projects at our locations and electrification of our fleet.	Absolute energy use from our operations totaled approximately 3 trillion kilojoules — a 4% reduction since 2019, even as demand and production increased.	▲

<sup>1</sup> We define zero waste to landfill sites as a 90%+ diversion rate.



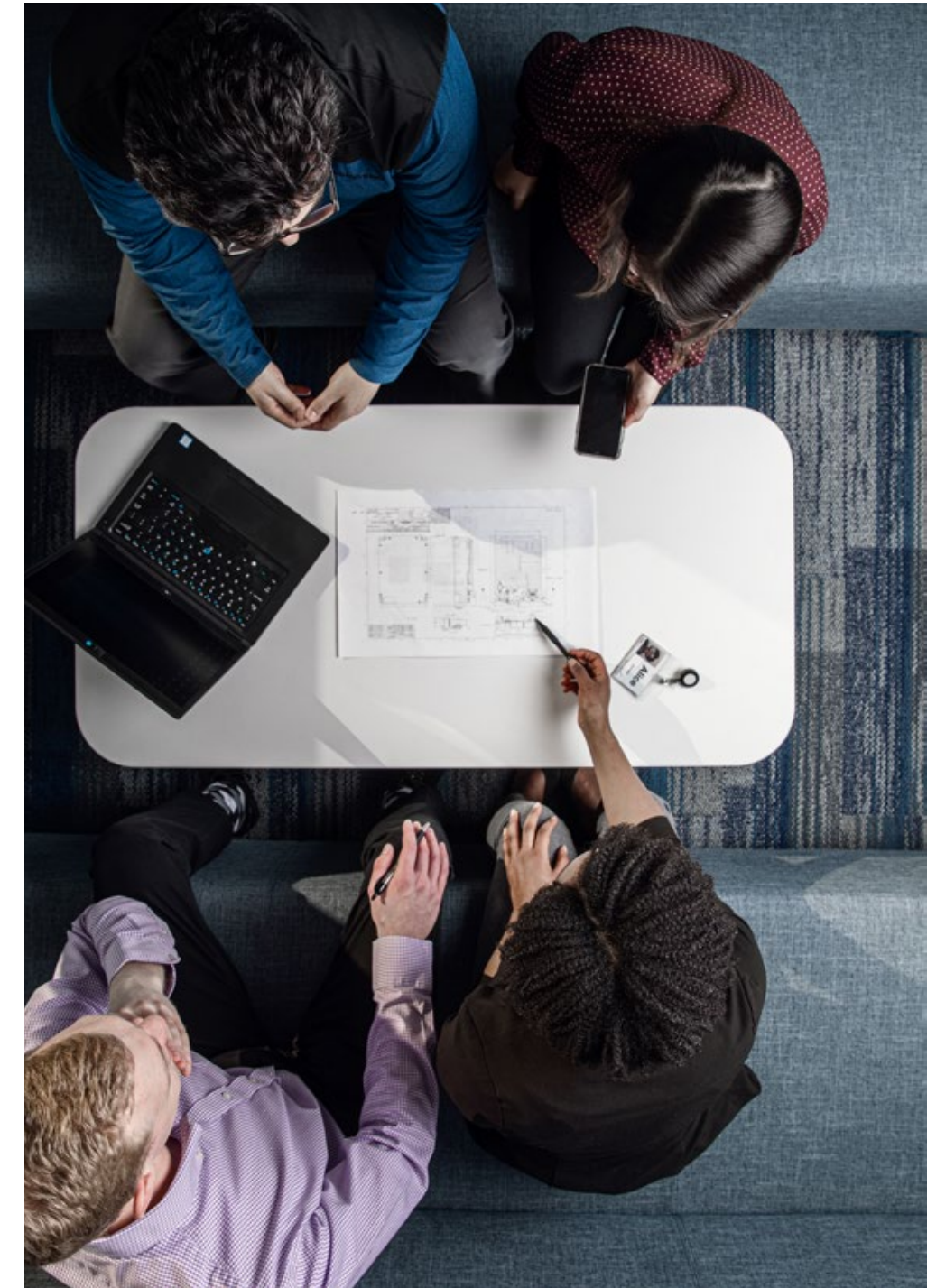


## Opportunity for All

Sustainable Development Goal	2030 goal	Targets	Performance indicators	Progress through 2023
	Achieve workforce diversity reflective of our communities	Increase racial and ethnic diversity of our salaried population in the United States from 17% to 26% by 2030 — an increase of 50% from baseline.	Increased racially or ethnically diverse salaried employees from 17% in 2020 to 20.6%.	▲
	Advance gender parity in senior leadership positions	Increase women in management roles from 22% to 35% by 2030.	Increased women in management from 22% in 2020 to 25.2%.	▲
	Maintain world-class safety metrics	Lost Time Incident Rate (LTIR): 0.06.	LTIR: 0.10, which is equivalent to our 2019 baseline, world class performance compared to peers.	—
		Total Recordable Incident Rate (TRIR): 0.60.	TRIR: 0.83, which is equivalent to our 2019 baseline.	—
	Provide market-competitive wages and benefits and leading wellness offerings for global workforce	Targets are market specific.	All employee compensation is assessed for market competitiveness and gender/race parity. U.S. hourly starting wages are 200%+ above state minimum wages on average.	▲
	Invest \$100 million in building sustainable futures for underrepresented communities	Enhance healthy learning environments and access to healthy foods.	Provided nearly a half million dollars to Carolina Farm Trust to increase community access to fresh, healthy food and agricultural jobs and education.	▲
		Expand access to science, technology, engineering and mathematics (STEM) education and pathways for green and STEM careers.	Provided STEM experiences in each of our global regions, expanding our non-profit network to approximately 35 partners.	▲
	Dedicate 500,000 employee volunteer hours in our communities	Mobilize employees in our communities around the world to volunteer with non-profit organizations.	Employees volunteered over 237,000 hours since 2019, bringing us to 47% of our goal.	▲+

“ If you aim high, your commitments become your North Star. Creating the challenge will inspire people to figure out what different actions or behaviors they need to take to meet it.

Scott Tew, VP Center for Energy Efficiency & Sustainability (CEES)







AMBITIONS

# Gigaton Challenge



[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

Climate science tells us that approximately 15% of global annual greenhouse gas (GHG) emissions relate to heating and cooling buildings and homes, while nearly 10% comes from food lost in transport or never consumed. At Trane Technologies, we are taking action every day to address the GHG emissions from these sources.

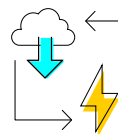
Through our Gigaton Challenge, we aim to reduce 1 gigaton of GHG emissions (1 billion metric tons of carbon dioxide equivalent [mtCO<sub>2</sub>e]) from our customer footprint by 2030. The Gigaton Challenge is the first-of-its-kind climate commitment related to customer product use of any business-to-business company. It guides our mission to change the way the world heats and cools buildings and transports refrigerated cargo.

To achieve our Gigaton Challenge, we take action to reduce our customer carbon emissions from the use of our products and services from a 2019 baseline through 2030. Since 2019, our reductions are equivalent to 157 million mtCO<sub>2</sub>e.



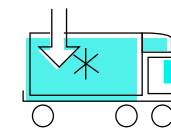
## EMBEDDING SUSTAINABILITY

From **service technicians** maintaining energy-efficient HVAC systems, to **data scientists** that help turn insights into climate action, everyone at Trane Technologies contributes to our Gigaton Challenge in some way. [Hear team members](#) describe how they are inspired by the part they play.



# 157 million

mtCO<sub>2</sub>e contributed to the Gigaton Challenge since 2019.



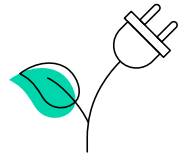
# 213,900+

mtCO<sub>2</sub>e of refrigerant reclaimed in 2023.



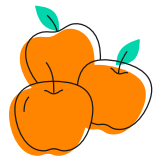
## Our pathway to the Gigaton Challenge

To help us achieve our Gigaton Challenge, we defined four levers that provide the most significant opportunities for customer decarbonization.



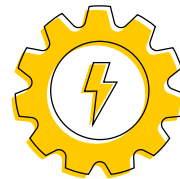
### High-efficiency equipment

Accelerate use of high-efficiency equipment by taking a system-level approach to buildings, homes and transport; including efforts to expand electrification of heating and adoption of electric motor systems and thermal battery systems that lead to gains in efficiency and resiliency.



### Reduce food loss

Increase sales of temperature-controlled transportation in developing countries to reduce food loss in the global cold chain. Systems that incorporate cutting-edge telematics ensure optimal efficiencies during transport of perishables.



### Efficiencies beyond equipment

Increase projects that include building envelope improvements, controls and lighting upgrades, as well as energy and maintenance services. In addition, we provide highly efficient heat pumps and thermal management systems that reduce the use of existing boilers that utilize fossil fuels. Digital services, AI-powered building automation and analytics and auxiliary power units also contribute to gains beyond equipment efficiency, which lead to further emissions reductions for customers.



### Refrigerant transition management

Transition equipment ahead of new global warming potential regulations and encourage an increase in refrigerant reclamation through our Reclaim Program.

We continually innovate for our customers by designing products, solutions and services that have large impacts on their sustainability goals and advance their carbon reduction journey. Our thermal battery storage-source heat pump systems are a great example, delivering 3X the efficiency compared to traditional heating methods. These novel approaches are delivered with our innovative systems. Read more about our [Product development process](#) and our [Products & innovation](#) that contribute to the Gigaton Challenge.





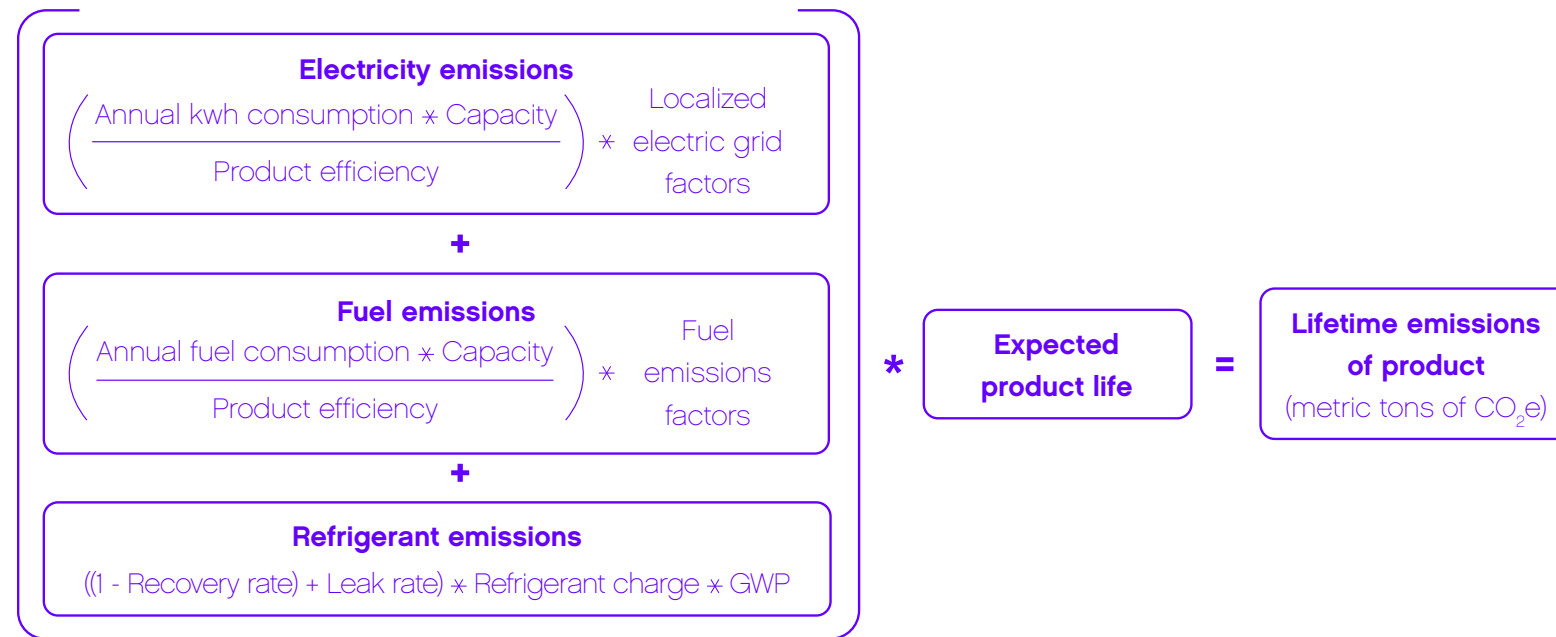
## Calculating our pathway to success

Our [Gigaton Challenge](#) goal covers our product portfolio, exceeding 1 million products. Each year, we add together the lifetime emissions generated by all products sold during the calendar year and compare the sum to the equivalent lifetime emissions generated by all products sold during our baseline year of 2019, normalized to account for volume growth.<sup>[1]</sup> The difference in emissions between the current year and the baseline year is that year's product emissions contribution to the Gigaton Challenge. A third-party provides limited assurance of our absolute product use emissions annually.

We also calculate the cumulative customer emissions avoided through our services, which contribute to our Gigaton Challenge. We use a proprietary calculation methodology because there is no universal standard widely applied to calculate avoided emissions. We measure and calculate avoided emissions and absolute emissions reductions separately to help us capture both accurately.

<sup>1</sup> The normalization of the data to account for unit volume is based on emissions per thermal ton (which is a measure of emissions per unit of energy).

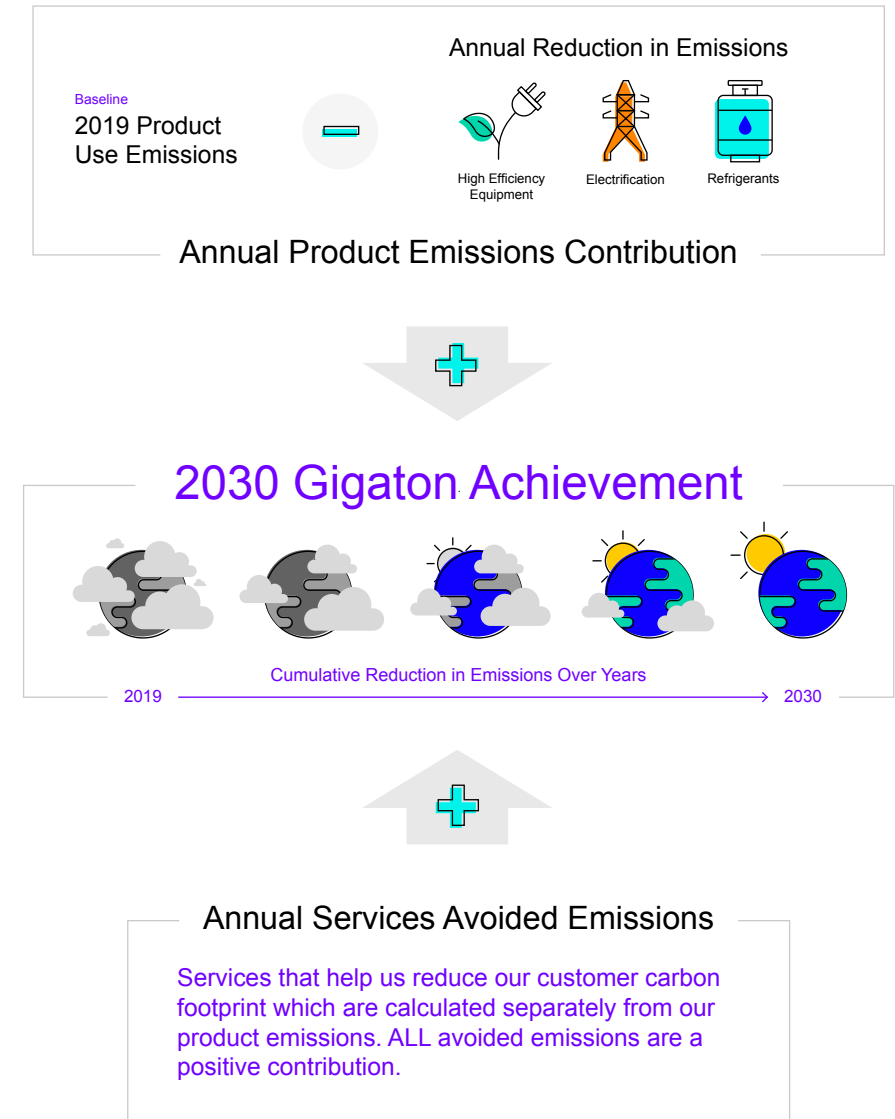
### Annual product emissions calculation



## Looking ahead

To create a lasting, positive impact, we will continue to share knowledge, transparently report progress and encourage other companies to make equally ambitious commitments.

Download our [Gigaton Challenge Playbook](#) for more details on our commitment and an overview of how we are calculating emissions and activating this goal across our company.





# Environment

We take bold action to address climate change and continually lead our industry toward a more sustainable future. Throughout 2023, we made progress on our science-based targets by reducing emissions across our operations and in our value chain.

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[Climate change](#) →

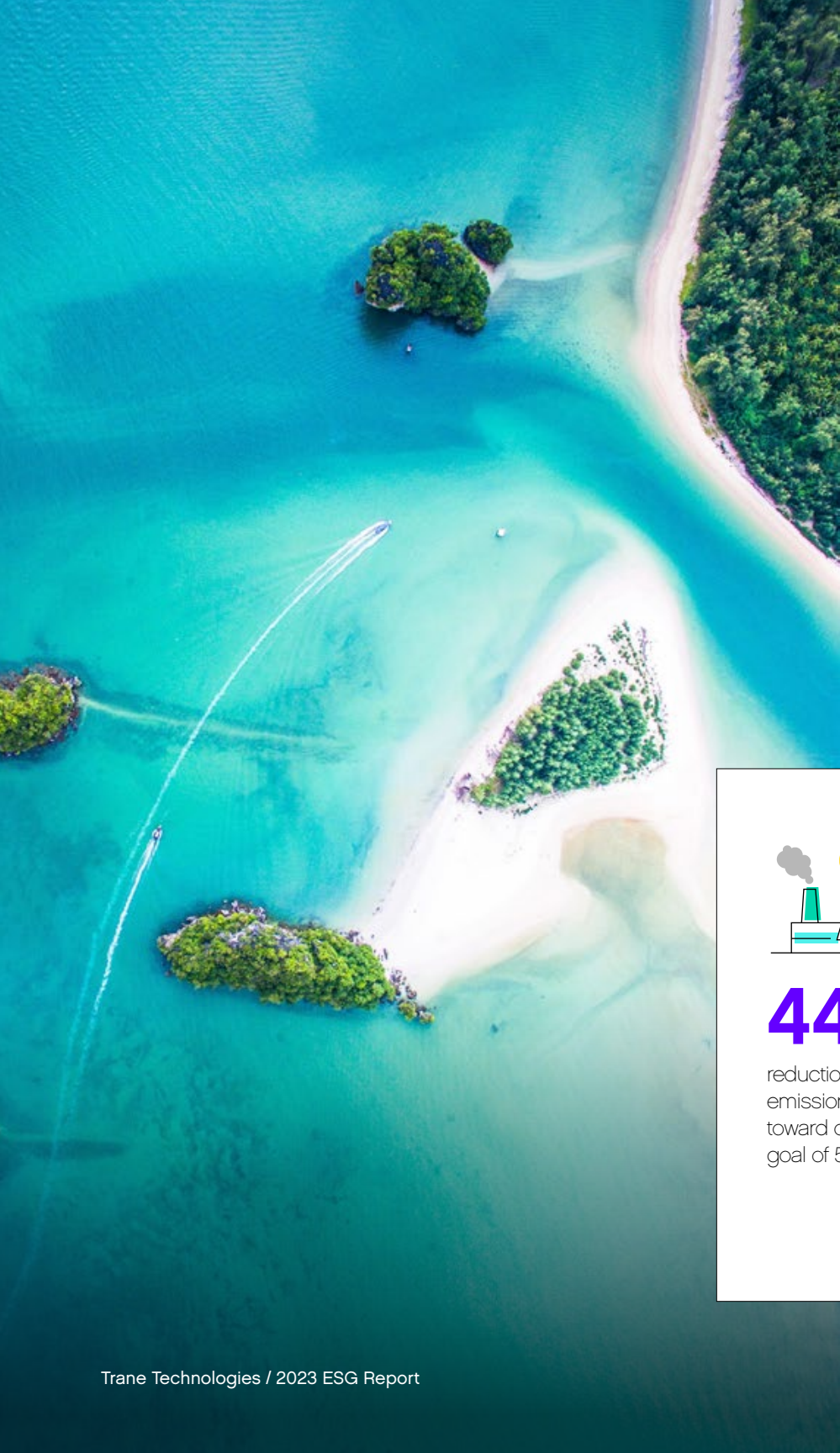
[Greenhouse gas emissions](#) →

[Energy](#) →

[Waste](#) →

[Water](#) →





ENVIRONMENT

# Climate change

13



[U.N. SUSTAINABLE DEVELOPMENT GOALS](#) →

GRI 3-3, 201-2

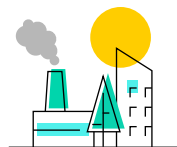
We recognize that our actions affect the planet, which is why we work to reduce environmental impacts and address climate change. We report clear progress on our climate ambitions each year, driven by our innovative products, services and mitigation efforts. By engaging with suppliers, collaborating with external partners and developing new products and services, we continue to reduce emissions, improve energy efficiency and challenge what's possible. Read more about our external partnerships in the [Charters & partnerships](#) section.

## Our footprint

We developed our climate strategy based on the latest scientific research and the Paris Agreement aimed at limiting global temperature rise to 1.5 degrees Celsius. Our strategy includes near-term Scope 1, 2 and 3 emissions reduction targets<sup>1</sup> and a long-term 2050 net-zero target — all validated by the Science Based Targets initiative (SBTi). Our climate strategy is integrated throughout our business, from [research and development](#) to our manufacturing processes. This strategy also informs our work with customers through our [Gigaton Challenge](#).

Our product-related GHG emission reduction efforts focus on the largest area of impact within our Scope 3 emissions: customer use of our products. Through the Gigaton Challenge, we implement strategies that help our customers reduce these emissions that comprise over 98% of our carbon footprint. In addition to lowering customer emissions, we are reducing our Scope 1 and 2 emissions generated from our operations by implementing electrification and efficiency solutions across our global facilities, including finding ways to reduce refrigerant losses. Read more about our emissions reduction commitments in [Ambitions](#).

<sup>1</sup> Scope 1, 2 and 3 greenhouse gas (GHG) emissions inventory was completed using 2019 as our baseline. We strategically chose this baseline, which represents an average production year, to set ambitious emissions reduction targets and strategies. As we expand through acquisitions, we will recalculate our baselines to accurately reflect our current operations.



# 44%

reduction in Scope 1 and 2 absolute emissions from our 2019 baseline toward our science-based target goal of 50% reduction by 2030



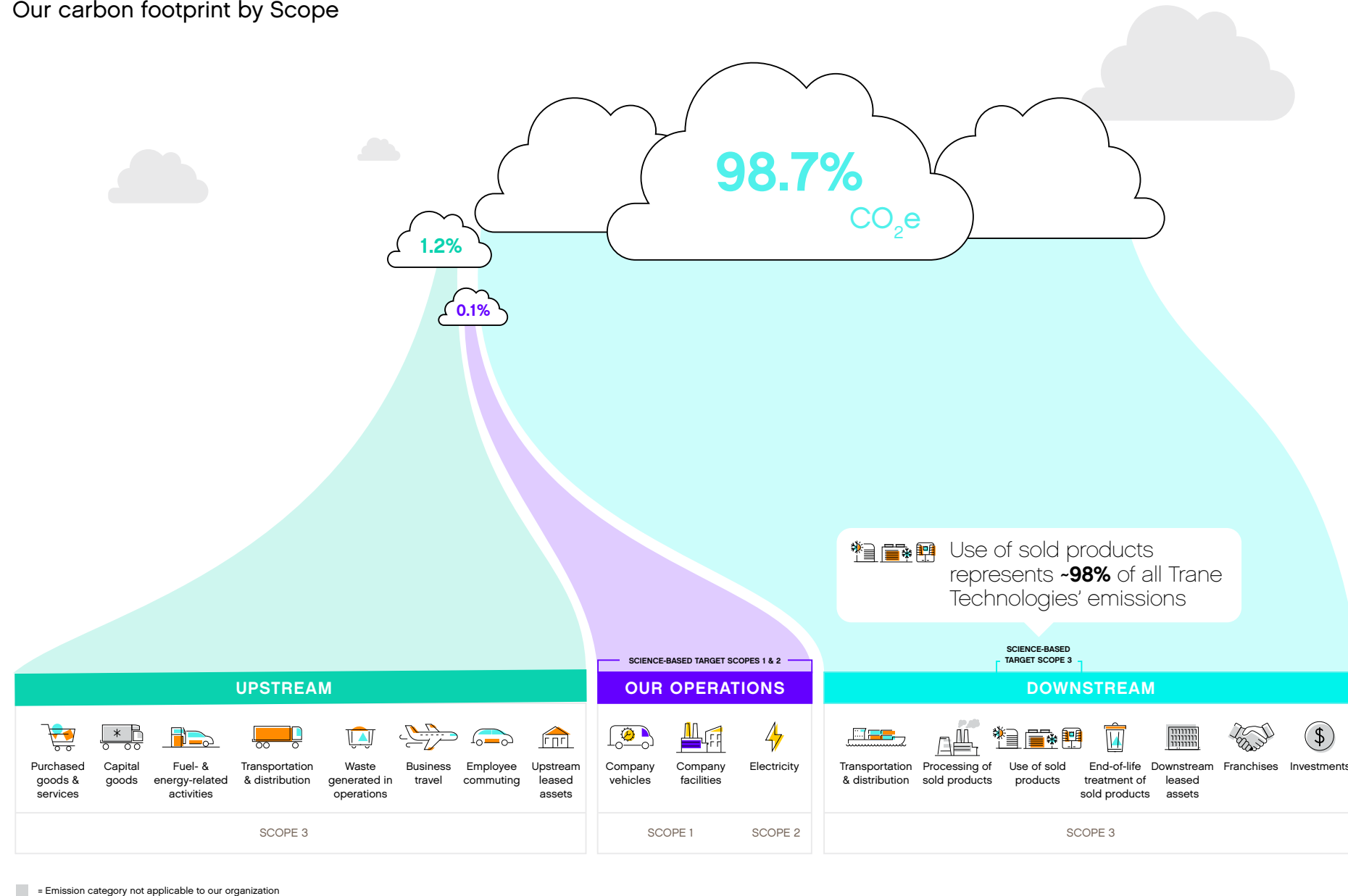
# 15.2%

reduction in emissions per thermal ton<sup>1</sup> for Scope 3 product use from our 2019 baseline toward our science-based target goal of 55% reduction by 2030

<sup>1</sup> Emissions per thermal ton (capacity) equals total emissions divided by total thermal capacity/ton.



## Our carbon footprint by Scope



## Our impact on natural systems

We recognize climate change and nature are interconnected, and we commit to assessing nature impacts while improving the ways we track and manage these efforts.

Our near-term and long-term science-based target goals are designed to reduce our climate change impacts, including the loss of biodiversity and habitats caused by rising temperatures and sea levels. As part of our [Gigaton Challenge](#), we are reducing food loss within the cold chain. Increasing global access to the cold chain eliminates the need to compensate for food loss that puts pressure on agricultural land.

As we [design our products for circularity](#) and [zero waste to landfill](#), we reduce our reliance on virgin materials that must otherwise be extracted from nature. To reduce the [carbon intensity of producing steel](#) for our products, we joined the First Movers Coalition and SteelZero initiatives. By limiting raw material extraction and helping lead the market transition toward low-carbon options, we limit our negative impacts on nature. In addition to limiting our own material use, we encourage our suppliers to use [reusable or returnable packaging](#) to reduce the need for wood-based and single-use plastic products within our supply chain.

To achieve our 2030 net-positive water commitment, we track our water use, which helps us identify areas to reduce our water consumption. By reducing our reliance on fresh water, we help protect natural watersheds and preserve access to fresh water in water-stressed areas. We track monthly water use and effluent discharge with an Environmental, Health and Safety (EHS) management system. Each location has its own internal action threshold to align with its specific regulatory requirements and risks. Since 2019, we have [reduced water use](#) at facilities in water-stressed regions by 26%, ensuring water availability for local wildlife and increasing groundwater recharge time.

We align with internal stakeholders and engage with non-governmental organizations and partners to evolve our approach to biodiversity. In 2023, we joined the World Business Council for Sustainable Development (WBCSD) Roadmap to Nature Positive working group, which helps us understand where we can meaningfully contribute to biodiversity efforts. We plan to execute the [WBCSD Roadmap to Nature Positive: Foundations for all Businesses](#) guidance with an objective to complete Stage 1, a nature materiality screening that includes evaluating impacts and assessing risks and opportunities to help inform our strategy, in early 2024. We also aim to reinforce our biodiversity approach and disclosures by aligning with the Task Force on Nature-related Disclosures.



## Climate resilience in our communities

According to the [Intergovernmental Panel on Climate Change](#), creating inclusive, sustainable adaptation plans and resilient development is critical to achieving climate equity. Trane Technologies is committed to decarbonizing in alignment with the “just transition” guidelines. In 2024, we will develop a roadmap to advance our strategy guided by the [International Labor Organization Guidelines for a Just Transition](#). The United Nations Global Compact states that a just transition “ensures that environmentally sustainable economies are promoted in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind. It aims to ensure that the transition to net-zero emissions and climate resilience is orderly, inclusive and just.”<sup>1</sup>

- As we face the challenges of climate change and the energy transition, Trane Technologies is committed to identifying equitable ways to retain and retrain our workers associated with electrification and decarbonization so their careers can evolve alongside technology and innovation. We commit to local sourcing, and we seek to hire team members reflective of the communities in which we operate. To stimulate local economies, we partner with local colleges to provide training opportunities. Learn more about how we are upskilling the workforce of tomorrow in partnership with the [University of Minnesota’s Technological Leadership Institute](#).
- Through individual employee sustainability goals, we encourage our team members to apply their unique perspectives to the specific challenges in their communities. These goals are part of our yearly performance management process and often lead to group collaboration on sustainability initiatives. These employee-led initiatives shape our community impact efforts and inspire Opportunity for All. Read more about how our global network of [Purple Teams](#) is taking action in their communities to expand access to science, technology, engineering and mathematics (STEM) education and technology.

We recognize that climate change disproportionately affects underrepresented and poorer communities. Since each community faces unique challenges caused by climate change, we find ways to help address specific community needs.

<sup>1</sup> [Just Transition | U.N. Global Compact](#)

We invest in programs aimed at serving underrepresented students and communities.

- Trane Technologies is a founding partner of the [Carolina Farm Trust](#) (CFT), a non-profit that provides solutions to food insecurity and the loss of local farmland. Through CFT, the community now has increased access to locally grown fruits, vegetables and animal products that are often more affordable, flavorful and nutritious than packaged food.
- Through our employee-led open innovation program, [Operation Possible](#), our team members are developing concepts for solutions focused on providing affordable access to life-sustaining heating and cooling to vulnerable and displaced people.
- We incorporate equity into our advocacy strategy and support [environmental policy changes](#) that aim to positively impact our communities through the development of clean-energy infrastructure and the use of low-global warming potential refrigerants.

Through our holistic approach to addressing climate impacts, we recognize the intersection between environmental and social impact and economic stability. As we work toward achieving our [2030 Sustainability Commitments](#), we continually examine how our efforts can contribute to a just transition that empowers people and creates equitable climate change resiliency.

## Commitment to transparency

We demonstrate transparency and governance by reporting in alignment with leading ESG and sustainability reporting frameworks, including the voluntary disclosures of the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#). Our select EHS data and GHG emissions data, including the product-use emissions data associated with the Gigaton Challenge, receive limited assurance annually. View the results in our [2023 Limited Assurance Report](#).



### Providing upskilling and reskilling to prepare a generation of workers for an all-electric future

Trane Technologies is upskilling the next generation as the world transitions from fossil fuel-powered systems to hybrid and all-electric systems. In collaboration with the University of Minnesota’s Technological Leadership Institute, Trane Technologies co-created and piloted an engineering electrification graduate certificate. This program was driven by industry demand for a robust talent pipeline in fields including electrical, mechanical and systems engineering, renewable energy policy and energy conversion and storage. As the nation’s first graduate-level certificate specifically for electrification, this partnership provides upskilling and reskilling to help Minnesota workers retain jobs. This collaboration led the state to fund the [Minnesota Center for Electrification Opportunity](#), an initiative that trains workers in companies moving toward electrification and hybrid systems.





ENVIRONMENT

# Greenhouse gas emissions



[U.N. SUSTAINABLE DEVELOPMENT GOALS ->](#)

GRI 3-3, 305-1, 305-2, 305-3, 305-4, 305-5, SASB RT-IG-410a.1, RT-IG-410a.2, RT-IG-410a.3, RT-IG-410a.4

Our cross-functional experts continually implement solutions that reduce our greenhouse gas (GHG) emissions and contribution to global climate change. Our innovative strategies and partnerships help us progress toward our science-based targets to reduce our absolute Scope 1 and 2 GHG emissions by 50% by 2030 from a 2019 baseline and reduce our Scope 3 GHG product-use intensity metric of emissions per thermal ton by 55% over the same timeframe.

Our Vice President of Sustainability and Executive Director, Center for Energy Efficiency & Sustainability (CEES) oversees our emission reduction strategy and works with key senior leaders to create annual goals, obtain science-based validation of our reduction targets, establish pathways and reduction strategies and track our decarbonization progress.

Our Vice President of Environmental, Health and Safety (EHS) leads our operational emission reduction strategy and reports on internal progress toward our targets. We use a third-party benchmarking platform and customized GHG Dashboards and reports to monitor performance regularly and adopt site-specific annual emissions reduction goals. The platform collects energy and other activity data from each of our locations, calculates monthly carbon emissions using energy type and corresponding emissions factors, and tracks performance trends. Through an annual internal assurance process, we perform audits to confirm the accuracy of our emissions calculations. We use an independent third-party to verify Scope 1, 2 and 3 GHG emissions data.

Read our independent third-party [2023 Limited Assurance Report](#).



## 15.2%

reduction in emissions per thermal ton<sup>1</sup> for Scope 3 product use from our 2019 baseline toward our science-based target goal of 55% reduction by 2030

<sup>1</sup> Emissions per thermal ton (capacity) equals total emissions divided by total thermal capacity/ton.

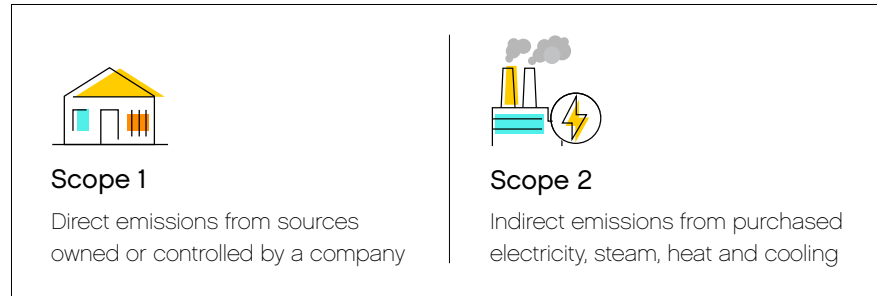


## 195,300+

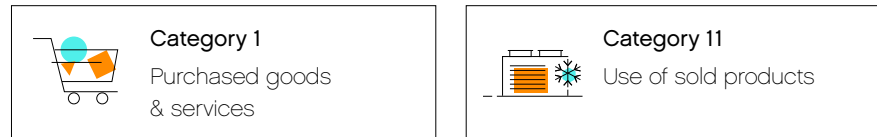
mtCO<sub>2</sub>e reduced in Scope 1 and 2 market-based emissions, representing a 44% decrease from a 2019 baseline



## Significant emissions scopes



## Scope 3



## Scope 1 & 2 GHG emissions

Refrigerant losses, fuel consumption and electricity use contribute to our Scope 1 and 2 GHG emissions. While our Scope 1 and 2 emissions account for less than 1% of our total<sup>[1]</sup> emissions, we continuously implement the latest technologies to drive reductions across all scopes.

In 2023, our Scope 1 and 2 market-based GHG emissions decreased by 49,979 metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e) compared to 2022. We reduced operational emissions intensity<sup>[2]</sup> for absolute Scope 1 and market-based<sup>[3]</sup> Scope 2 by 59% from a 2019 baseline, and we achieved a 31% reduction in absolute Scope 1 and location-based<sup>[4]</sup> GHG emissions from a 2019 baseline. Read more about our GHG emissions metrics in the [ESG data center](#) section and our electricity consumption in the [Energy](#) section.

We engage in external partnerships and initiatives that help us accelerate our Scope 1 and 2 GHG emissions reduction efforts. In 2023, Trane Technologies joined [H2ForNetZero](#), a global initiative focused on accelerating hydrogen production with the lowest possible carbon intensity to reach net-zero and the Paris Agreement. As we work toward our 2030 Sustainability Commitments, we pursue all clean-energy solutions, including those based on low-carbon hydrogen. For example, in 2023 we deployed forklifts powered by hydrogen fuel in one of our U.S. manufacturing facilities, and in 2024 we expect to expand the program.

## ACCELERATING DECARBONIZATION THROUGH INTERIM TARGETS

In 2023, we continued investing in absolute Scope 1 and 2 emission reduction strategies to reduce our need to purchase verified carbon offsets as we work toward our commitment to achieve carbon neutrality in 2030.

Our Chair and CEO challenged our team members to accelerate the decarbonization of our operations by committing to reduce GHG emissions (Scope 1 and 2) by 25% by 2025 (from a 2021 baseline). In 2023, we are on track to achieve this 25x25 commitment through our efforts to transition to the use of low-global warming potential (GWP) refrigerants and energy-efficient heating, ventilation and air conditioning (HVAC) systems with smart controls within our operations. We also plan to enhance refrigerant leak prevention systems, optimize air compressor systems and convert all our locations to light-emitting diode (LED) lighting with smart controls. Finally, we plan to complete the initial, critical steps to shift away from fossil fuel use.

We established a working team that meets regularly to review our 25x25 progress, identify new opportunities that contribute to this goal and establish future reduction efforts.

## REFRIGERANT MANAGEMENT BEST PRACTICES

Each year, we increase our investment in the transition to lower global warming potential (GWP) refrigerants. We upgrade our plants to enable the use of new refrigerants for product manufacture and testing. By preventing leaks in our operational equipment, switching from hydrofluorocarbons (HFCs) to low-GWP refrigerants and maintaining our equipment, we can effectively reduce our Scope 1 emissions from refrigerant use. Emissions from refrigerant loss make up approximately 42% of our Scope 1 GHG emissions.

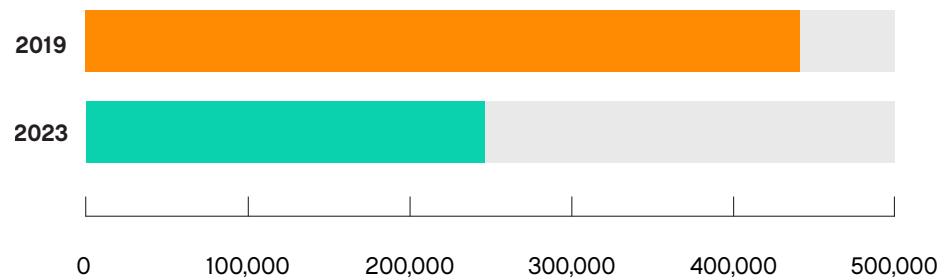
For example, in 2023, we transitioned from R410A, a higher GWP refrigerant, to R454B at our plant in Charmes, France. To prepare for this shift, we updated our storage and charging equipment and added enhanced refrigerant leak prevention measures, which resulted in a Scope 1 reduction of 5,148 mtCO<sub>2</sub>e.

Overall, Trane Technologies lowered GHG emissions from refrigerant leaks by over 56% from a 2019 baseline by transitioning to low-GWP refrigerants and implementing technical procedures that prevent leaks.

In addition to efforts within our operations, we continue to lead an industry-wide transition to low-GWP refrigerants through our innovation and advocacy efforts. Our leaders were deeply engaged in negotiations for the Kigali Amendment, which as of 2023, has been ratified by 156 parties that committed to reducing their use of HFC refrigerants. In support of the Kigali Amendment, we continue to advance the use of new low-GWP refrigerants in national and local jurisdictions. Read more in the [Public policy](#) section.



### 44% reduction in absolute market-based Scope 1 & 2 GHG emissions From a 2019 Baseline



- 1 Total emissions: Scope 1, 2 and 3 GHG emissions.
- 2 Intensity: the GHG emissions impact per unit of physical activity or unit of economic output. Trane Technologies' GHG intensity represents Scope 1 and 2 market-based emissions per company revenue. Definition adapted from the GHG Protocol.
- 3 Absolute Scope 2 market-based carbon: based on Trane Technologies' total purchased energy consumption and the emissions intensity associated with the specific energy suppliers and products that Trane Technologies chooses to use. This value incorporates the renewable electricity that Trane Technologies is proactively procuring or generating. Definition adapted from the GHG Protocol.
- 4 Absolute Scope 2 location-based carbon: based on Trane Technologies' total purchased energy consumption and the average emissions intensity of the grid in the geographic locations where consumption is occurring. Definition adapted from the GHG protocol.





### La Crosse thermal management system

In 2023, we initiated an HVAC retrofit at our La Crosse, Wisconsin, facility using our own energy-efficient technology. With the installation of a Trane® Thermal Battery™ storage-source heat pump system, the building is moving from natural gas-based steam heating to an advanced electric heating and cooling system, with the capability to store waste heat from the cooling process to use later to heat the building. Using this advanced integrated system will help reduce the overall energy intensity of the building by 28% and carbon emissions by 21 metric tons (mtCO<sub>2</sub>e) per year.

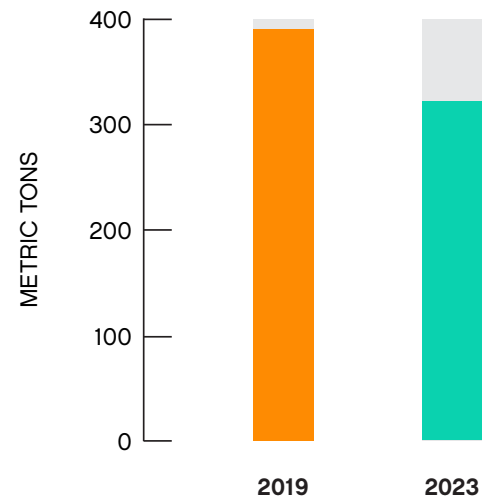
### FUEL EMISSIONS

The fuel used by our vehicle fleet, which includes gasoline and diesel engines, contributes to our Scope 1 emissions. As part of our efforts to reduce Scope 1 emissions, we committed to EV100, which requires us to fully transition to an electric fleet by 2030. In 2023, we partnered with a fleet management company to help us meet our EV100 commitment and address several specific barriers, including our rate of vehicle purchases and need for charging infrastructure.

In 2023, our fleet used approximately 6.7 million gallons of gasoline and approximately 1.1 million gallons of diesel fuel. By the end of 2023, we modernized our fleet by adding 8% more hybrid and fully electric vehicles. Our average fleet fuel efficiency increased to 178 MPG (a 1.1% increase) due to acquisition of newer, higher-efficiency vehicles (gasoline, diesel, hybrid or electric).

### Other air emissions (Nitrogen oxides, sulfur oxides & volatile organic compounds)

**18% reduction in other air emissions**  
From a 2019 baseline



### Decarbonizing industry through heat pump technology

In 2023, the U.S. Department of Energy (DOE) awarded multiple projects for the research and development of transformational technologies to accelerate the electrification of high-temperature heating processes in the industrial sector. [Trane Technologies participated in three projects:](#)

With the DOE's Oak Ridge National Laboratory, the project is developing and testing an ultra-high-temperature industrial heat pump. This heat pump has multiple systems-level design considerations, including advanced artificial intelligence (AI)-enabled process control, low-GWP refrigerants and waste heat recovery.

At Purdue University, the project focuses on a higher-temperature industrial heat pump. Leveraging 3D printing, the project will develop the system's compressor and considered design factors such as thermal energy storage for optimized integration of industrial processes.

The project with Texas A&M University's Engineering Experiment Station supports the development of a high-performance heat pump system that integrates dehumidification, low-cost sensors and predictive controls to improve methods for drying foods while maintaining food quality and lowering energy costs.



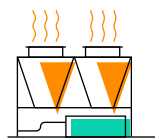
## Scope 3 GHG emissions

Our customer use of Trane Technologies products accounts for approximately 98% of our emissions and represents the largest opportunity for reductions. We set a 2030 science-based target to reduce Scope 3 emissions by 55% per thermal ton as an intensity metric and created the Gigaton Challenge to address this opportunity.

In 2023, we found new ways to share insights across businesses to drive emissions reductions and achieved a 15.2% reduction in our science-based target versus our 2019 baseline. This reduction indicates that we are on track to achieve our science-based Scope 3 target. It also indicates steady progress toward the Gigaton Challenge with a total reduction of 157M mtCO<sub>2</sub>e since 2019.

Our approach adheres to the Greenhouse Gas (GHG) Protocol and we continually refine our calculations for Scope 3 product-use emissions. This includes accounting for new products and services in our absolute emissions number, adding to the millions of products and services sold since 2019 that are already in our calculation.

We reduce product-use emissions through three product development strategies.



**High-efficiency equipment:** Higher-efficiency products consume less electricity and have fewer related indirect GHG emissions. We continually expand our product portfolio to include more innovative and efficient equipment and digital solutions to help our customers decarbonize.



**Electrification:** Transitioning to electricity-driven products, such as replacing a gas-powered boiler with an electric heat pump, can reduce our customers' reliance on fossil fuels. We offer customers world-class electrical product options to support their decarbonization efforts.

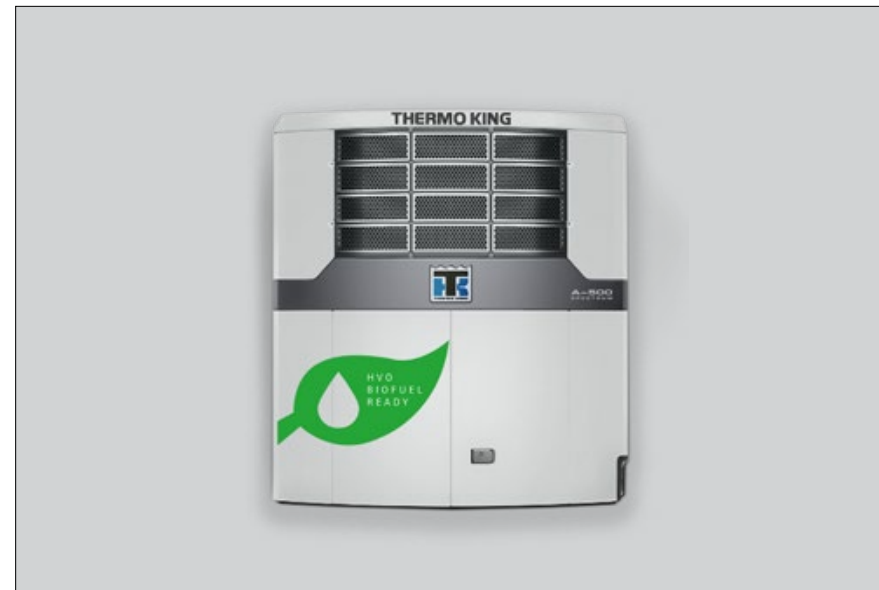


**Refrigerant transition management:** We innovate products that use next-generation, low-GWP refrigerants that enable our customers to transition away from high-GWP refrigerants and reduce their Scope 1 emissions. We also help our customers manage their refrigerants by reclaiming and recycling used refrigerants.

Read more about our [Energy-efficient & low-emission solutions](#).

We also reduce our upstream and downstream distribution and transportation emissions through route optimization, fuel efficiency and shipment utilization improvement projects with logistics partners. We implement region-of-use manufacturing operations where possible and focus on reducing the number of miles that our materials and products travel before reaching our customers. We calculate all relevant Scope 3 emissions categories on an annual basis. These calculations are published in our [CDP Climate response](#).

Read more about our Scope 3 emissions in the [ESG data center](#) section and our logistics strategy in the [Supply chain transparency & performance](#) section.



### Transport refrigeration decarbonization solutions

Following a successful customer trial in 2023, [Trane Technologies approved the use of Hydrotreated Vegetable Oil \(HVO\)](#) fossil-free fuel as a sustainable alternative to diesel fuel in Thermo King® transport refrigeration solutions. HVO is a premium quality fuel product made of 100% renewable raw materials. The use of HVO fuel offers a 90% reduction in GHG emissions while maintaining optimal product performance. Use of HVO in Thermo King global cold chain solutions, including refrigerated truck and trailer product lines, helps our customers decarbonize as we execute our strategic roadmap to net-zero.

## Looking forward to a resilient future

To achieve net-zero emissions by 2050, we recognize the need to meet intermediate targets, including our near-term 2030 science-based targets. Our journey toward net-zero is well underway, and we use the latest scientific climate change research to guide our strategy. We continue to invest in technologies that reduce emissions while refining our internal carbon pricing strategy for Scope 1 and 2 emissions. Read more about carbon pricing in our [CDP Climate response](#).

Trane Technologies acknowledges the importance of emerging technologies to remove, sequester and eliminate carbon emissions. We commit to assessing the inclusion of technologies such as direct air capture to help achieve our 2050 Net-Zero target.

Our customers contribute to our decarbonization journey, and we continue to find ways to help them reduce their overall environmental impact. We engage our customers in decarbonization as a service, seeking new opportunities to leverage our expertise and skills to take real action and scale sustainable change. Read more about how we engage with customers in strategies and solutions to increase their sustainability in the [Customer-focused solutions section](#).

### 2023 Scope 3 emissions (mtCO<sub>2</sub>e)



**266 million**  
emissions from product use (assured)



**128,388**  
emissions from upstream and downstream distribution and transportation (estimate)



**9,958**  
emissions from business travel (assured)



**53,774**  
emissions from upstream leased assets (estimate)



**5 million**  
emissions from purchased goods and services (estimate)

Note: A third party provides limited assurance on our absolute product use emissions and business travel emissions annually.





ENVIRONMENT

# Energy



[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

GRI 3-3, 302-1, 302-3, 302-4, SASB RT-EE-130a.1; RT-IG-130a.1

By integrating energy-efficient processes in our operations, we aim to significantly reduce our absolute energy consumption and GHG emissions from our operations, even while our business grows to meet increasing demand. We set our goal to reduce absolute energy consumption by 10% against a 2019 baseline (by 2030), in order to accelerate energy productivity in our operations. Our absolute energy commitment contributes to our science-based target to reduce absolute Scope 1 and 2 emissions by 50% below 2019 levels. These energy reductions also contribute to our goal of achieving carbon neutral operations by 2030.

Read more about our [Sustainability Commitments](#).

Our Chair and CEO signed our Enterprise Energy Management Policy, which outlines our commitment to energy efficiency improvements across all business functions and operations. Our business units manage and track their progress toward our 2030 goals at each of our locations, with oversight from our Vice President of Environmental, Health and Safety (EHS). The Vice President of EHS,

and associated team, provides data reporting protocols, validates activity data and sustainability metrics calculations and manages company-wide actions. The Vice President of EHS is an integral part of Trane Technologies' Global Integrated Supply Chain Leadership Team, which directs all operation activities and cross-functional work to deliver on the projects necessary to achieve our annual and long-term sustainability commitments.

Our business units have Sustainability Oversight Teams that evaluate and guide projects to adopt energy improvements and identify common opportunities and energy solutions. These teams are comprised of representatives from Engineering, Facilities, Maintenance, Procurement, Operational Excellence, EHS and Operations. Our premier Trane® Energy Services team assists, defines and implements site-specific energy efficiency improvements. Our [membership in coalitions](#) contributing to the clean-energy economy provides us with the technical expertise and collaboration opportunities to help us achieve our goals.



# 4%

reduction in absolute energy consumption against a 2019 baseline, even as demand and production increased



# 68%

of our electricity consumption came from renewable sources in 2023

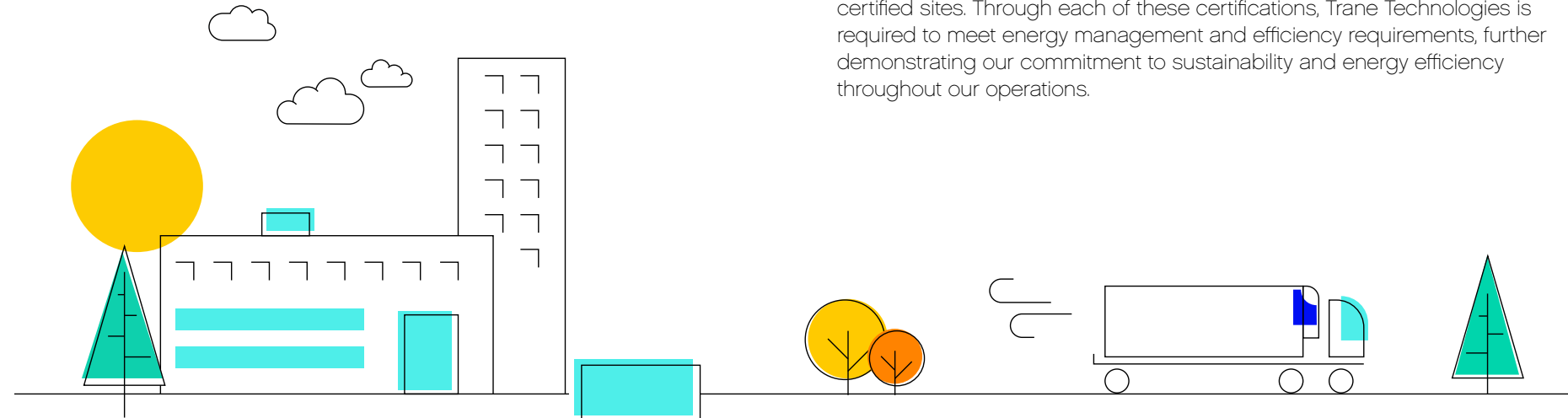


## ENERGY BREAKDOWN

In 2023, absolute energy use from our operations totaled approximately 3 trillion kilojoules, a 4% reduction from our 2019 baseline, representing a significant decrease in energy use while operating demand and production increased. Our energy intensity ratio (our total direct energy consumption divided by our total annual revenue) decreased to 0.17, a 14% decrease vs 2022. Of the total energy our operations consumed, 26% was electricity from renewable sources along with biofuels used in place of fossil fuels. During 2023, 68% of our electricity use was directly or indirectly received from renewable generation.

In 2023, we took steps toward further integrating our environmental management system with our capital project deployment processes that are tied to the most impactful decarbonization projects. These enhanced practices aim to improve line-of-sight across functions and manufacturing centers to ensure that energy-productive and emission-reducing projects are prioritized and funded with clear performance metrics linked to total return on investment.

To help ensure the accuracy of our energy use data, our EHS management team completes internal audits annually. An independent third-party then verifies this data as part of a limited data assurance audit. Read more about our energy consumption in the [ESG data center](#) section and our [2023 Limited Assurance Report](#).



## ENERGY EFFICIENCY

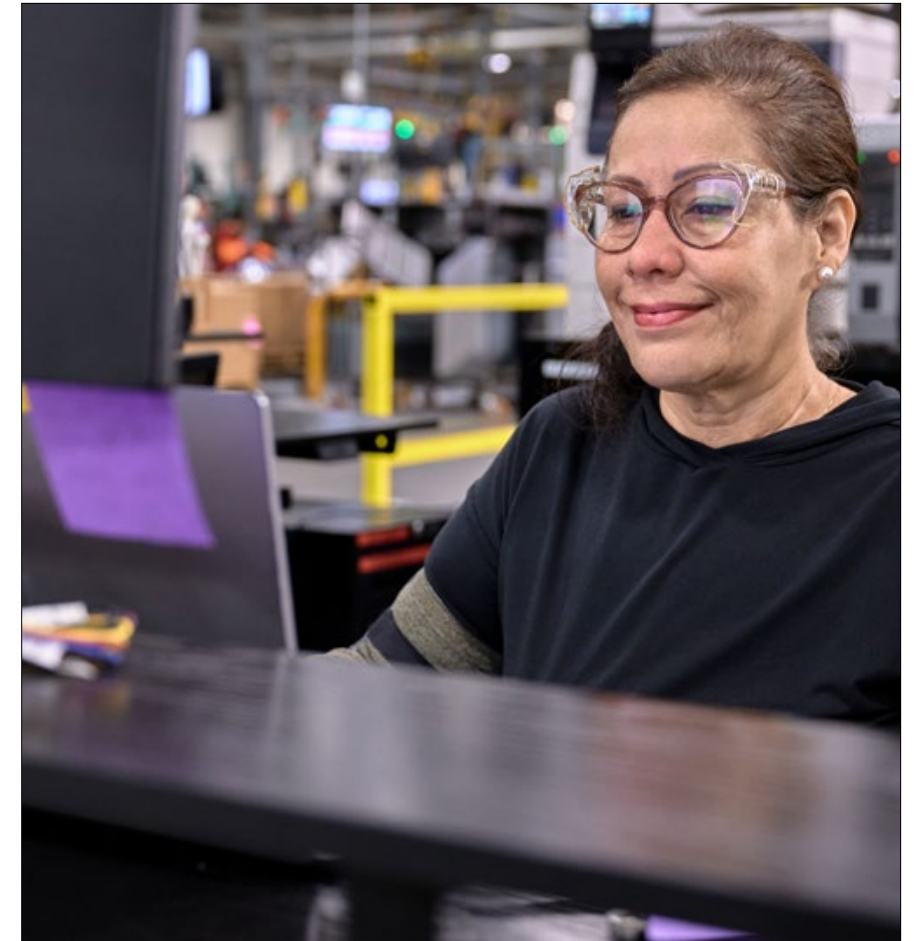
By lowering our overall energy consumption, we can reduce business costs and decrease GHG emissions. We install passive heating and cooling techniques to reduce the needed load from heating, ventilation and air conditioning (HVAC) systems and automate mechanical systems to reduce energy use. By designing smarter systems that support renewable energy integration, we shift electricity demand during peak periods to reduce the consumption of carbon-intensive electricity from the grid.

By shifting to energy-efficient and electric equipment to address optimization opportunities, we made a 29% improvement in total energy intensity in 2023 from a 2019 baseline.

Through formal commitments with the following organizations, we hold ourselves accountable to achieve our energy reduction goals.

- **Better Plants:** In 2021, we made our Better Plants commitment to reduce energy intensity by 20% over the next 10 years. Since establishing this commitment, we have reduced energy intensity by approximately 22%.
- **EP100 Coalition:** Through the [EP100 coalition](#), we are committed to doubling our energy productivity by 2035 from a 2013 baseline. By year end 2023, we achieved an energy productivity increase of 63% versus a 2013 baseline.
- **Mission Efficiency:** We commit to achieving an annual energy efficiency improvement of 3% through [Mission Efficiency](#), and we are on track to achieve this commitment.

At the end of 2023, we had seven International Standards Organization (ISO) 50001-certified sites, seven LEED-certified sites and four Green Globe-certified sites. Through each of these certifications, Trane Technologies is required to meet energy management and efficiency requirements, further demonstrating our commitment to sustainability and energy efficiency throughout our operations.



### EMBEDDING SUSTAINABILITY

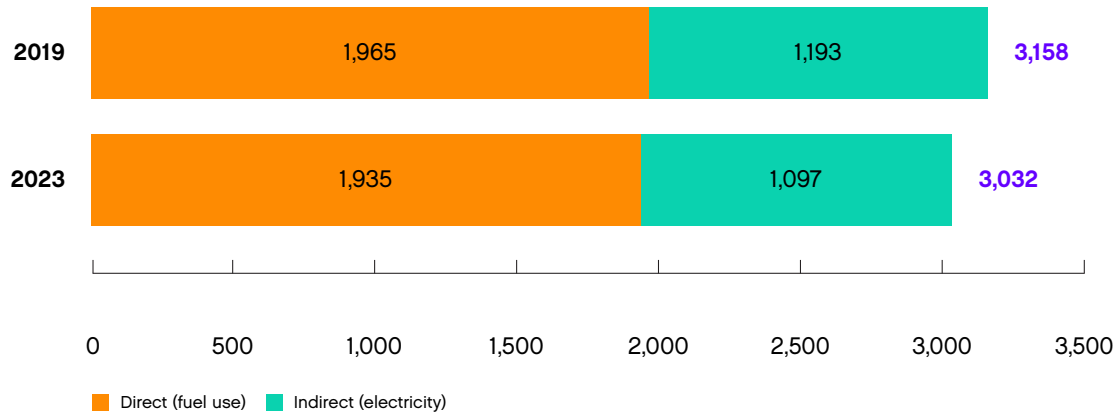
## New ideas & initiatives

Our **Information Technology (IT) function** created an IT Sustainability Team with the purpose of evaluating and implementing initiatives aimed at reducing carbon emissions from IT based operations. Building on our existing hardware and infrastructure management program, which responsibly repurposes or recycles used hardware, the team is gathering additional ideas from the global IT organization to foster innovative solutions. The team also organizes training sessions for IT professionals, like a workshop on green coding — an environmentally sustainable computer programming practice that helps minimize the energy needed in processing lines of code.

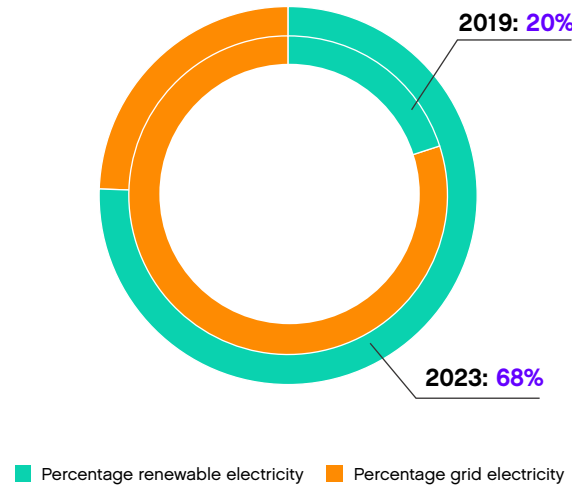


Total energy consumption (billion kJ)

4% absolute energy reduction from a 2019 baseline



Percentage of renewable electricity



**RENEWABLE ENERGY**

We commit to sourcing renewable energy to power our operations. We source renewable-based electricity directly from our own on-site photovoltaic (PV) / solar generation systems and indirectly through contracts with power suppliers and long-term power purchase agreements. These suppliers provide electricity directly from renewable systems (solar, wind or water) to help power our operations. In 2023, we reduced our total Scope 1 and 2 GHG emissions 26% by using renewable energy.

As part of our membership in RE100, we set a goal to source 100% renewable electricity globally by 2040. We remain on track to achieve this goal, with 26 Trane Technologies locations operating with 100% of their electricity provided directly or indirectly from renewable sources. This is an increase of seven locations since 2022. These locations operating as RE100 for the full calendar year represent 51% of Trane Technologies’ global electricity use. Total renewable electricity for all locations represents 68% of the global electricity usage for 2023. Four of our locations receive electricity that is 100% zero carbon: Bari, Italy; Essen, Germany; Galway, Ireland; and Shannon, Ireland.

In 2023, we expanded the number of on-site solar energy generation to three new sites. We now have seven facilities with on-site solar generation, including three in the United States (Columbia, South Carolina; Trenton, New Jersey; and Pueblo, Colorado), one in Mexico (Monterrey), [one in Europe \(Galway, Ireland\)](#) and two in China (Taicang and Zhongshan). Another new PV system is beginning construction at our Rushville, Indiana facility with start of operations expected summer of 2024.

We also participate in a virtual power purchase agreement (VPPA) with the Seymour Hills windfarm in Texas, which began generating electricity in June 2019. By generating renewable electricity, contracting with power companies that only supply renewable electricity and purchasing Renewable Energy Credits (RECs) through our VPPA, we achieved a reduction of 67% in our market-based Scope 2 GHG emissions since 2019.

Read more about our [emission reductions](#).



**Accelerating carbon neutral operations**

As we progress toward our goal of carbon neutral operations by 2030, our facilities are leading by example across the globe.

Our manufacturing teams in Galway, Ireland, continue to innovate how we manufacture solutions for the cold chain while leading the way in sustainable operations. From installing and expanding state-of-the-art carbon neutral production lines for Thermo King® Advancer products to enhancing roof insulation and installing 2,000 PV panels for renewable energy, the site is setting the pace for carbon neutral operations. [Watch the full story.](#)

In 2023, our Barcelona, Spain, facility achieved carbon neutrality by operating with zero carbon electricity through a Guarantee of Origin (GO) and shifting to biofuels.

In addition to these efforts, we expanded the use of RECs in the United States for the Clarksville, Tennessee, and Lynn Haven, Florida, sites in 2023.





## Trane Technologies renewable energy sources

Project	Location	Type	2023 production	REC treatment
Trenton Solar Project	Trenton, New Jersey, U.S.	On-Site Solar PV	2,172 MWh	Utility owns RECs <sup>1</sup>
Columbia Solar Project	Columbia, South Carolina, U.S.	On-Site Solar PV	1,470 MWh	Utility owns RECs <sup>1</sup>
Galway Solar Roof	Galway, Ireland	On-Site Solar Generation	1 MWh	N/A — No RECs: December 2023 kick off of on-site solar generation
Monterrey Solar Project and Purchased Zero Carbon Electricity	Monterrey, Mexico	On-Site Solar PV and purchased renewable electricity	110 MWh	N/A — No RECs: Portion of purchased electricity is 100% renewable
Taicang Solar Project and Purchased Zero Carbon Electricity	Taicang, China	On-Site Solar PV	6,557 MWh	N/A — No RECs: Company owns renewable energy attributes from 100% of generation
Zhongshan Solar Project and Purchased Zero Carbon Electricity	Zhongshan, China	On-Site Solar PV	1,318 MWh	N/A — No RECs: Company owns renewable energy attributes from 100% of generation
Seymour Hill Wind Farm VPPA	Northern Texas, U.S.	Wind VPPA	101,053 MWh	Company owns and retires RECs
Use of Zero Carbon Electricity	Bari, Italy; Galway and Shannon, Ireland; Essen, Germany	Direct supply of 100% renewable electricity by local power provider	24,836 MWh	N/A — No RECs: 100% renewable energy supplied by power provider
Vendor Provides RECs or GOs	Barcelona, Spain; Hastings, Nebraska, U.S.; Prague and Kolin, Czech Republic; Lynn Haven, Florida, U.S.; Clarksville, Tennessee, U.S.; Tyler, Texas, U.S.	Power company purchases and retires RECs/GOs for a portion or 100% of Trane Technologies electricity	81,680 MWh	Power provider retires RECs/GOs on behalf of Trane Technologies

**GO** = Guarantee of Origin; **MWh** = megawatt hours; **PV** = photovoltaic; **REC** = Renewable Energy Credits; **VPPA** = virtual power purchase agreement

<sup>1</sup> The Renewable Energy Credits (RECs) from this project are owned by the utilities. We purchase replacement RECs equal to the amount of solar generated by the PV system from other renewable energy facilities in the United States.





ENVIRONMENT

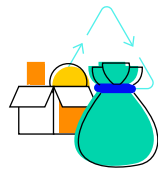
# Waste



[U.N. SUSTAINABLE DEVELOPMENT GOALS](#) →

Trane Technologies' waste reduction strategy aligns with our sustainability, resiliency and supply chain management efforts. We look for opportunities to minimize waste at every stage of our operations by integrating circular economy principles into our [product development process](#).

Our engineers consider the recyclability and efficiency of each material during product development, which helps us improve remanufacturing and recycling rates at the end-of-life stage. We search for efficiency opportunities to conserve natural resources and reduce potential by-products, like mineral waste and hazardous waste, in our manufacturing processes.



# 85%

of manufacturing sites are zero waste to landfill, an 8% increase from 2022<sup>11</sup>

<sup>1</sup> We define zero waste to landfill sites as a 90%+ diversion rate.

## Zero waste to landfill

We are committed to sending zero waste to landfill by 2030. In 2023, 39 of our global sites operated at zero waste to landfill status, an 8% increase from 36 sites in 2022<sup>11</sup>. Internally, we report and track waste output from our operations monthly and contract with an independent third-party to handle responsible disposal. We conduct studies at our key sites to identify opportunities for manufacturing process improvements.

One challenge we face in our effort to meet zero waste to landfill is addressing high transportation costs and carbon emissions caused by transporting waste from factories to recycling centers. In collaboration with our waste management partners, we expanded solutions to recycle single-stream cardboard and wood, or use waste-to-energy operations when physical recycling outlets are unavailable.

Trane Technologies complies with local regulations related to the management, transport and disposal of hazardous waste using the appropriate local definitions.

See more waste metrics in our [ESG data center](#) section.

## Packaging

Our procurement management team works with our preferred suppliers to reduce waste from packaging sent to landfill. Our Supplier Packaging Guidelines extend our sustainability strategies into our supply chain by informing suppliers about best practices that minimize cost, maximize safety and quality, and promote a preferred sequence of reduce, reuse and recycle.

In 2023, we continued to focus on waste elimination, including returnable packaging solutions. Since 2019, the Returnable Packaging Team has implemented over 60 projects for inbound parts from our external suppliers. We have deployed returnable packaging solutions for 14 of our North American manufacturing locations. In 2023, our Returnable Packaging Team implemented 27 new projects that will reduce approximately 1,616 tons of solid waste and 746 metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e) annually.

Read more about our efforts to [reduce and return packaging](#) with our suppliers.

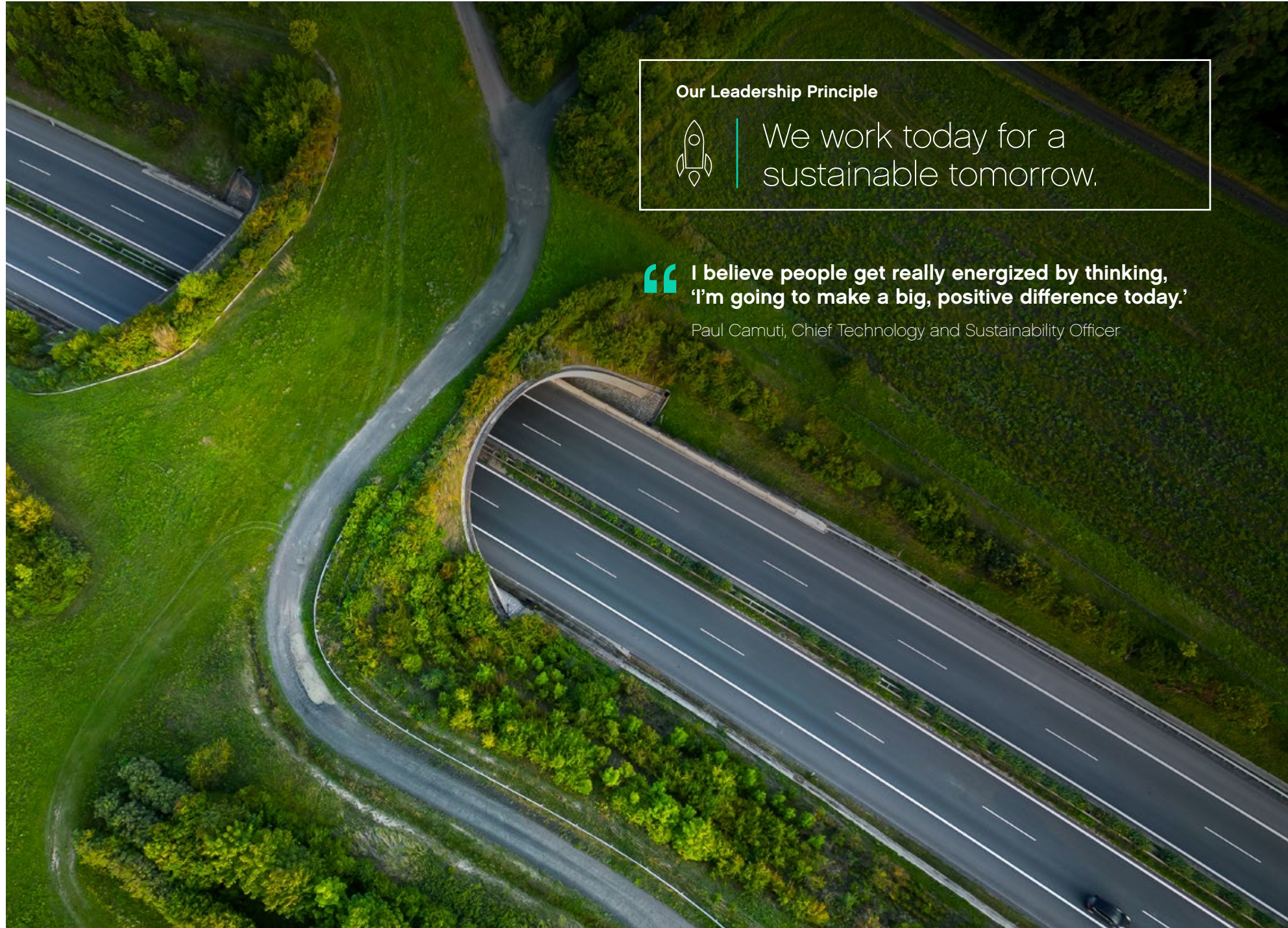
<sup>1</sup> We define zero waste to landfill sites as a 90%+ diversion rate.





### Honeycomb paperboard-based packaging

Stemming from an internal challenge to reduce the use of plastics in our business, a team of engineers found a more sustainable alternative for product packaging on our Thermo King® VP truck line in China. The optimized design replaced expanded polystyrene (EPS) with more sustainable substrate and honeycomb paperboard, using less material overall and resulting in 40% cost savings with the potential to reduce the total carbon footprint of the product line by 26 metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e) per year.



#### Our Leadership Principle



We work today for a sustainable tomorrow.

“ I believe people get really energized by thinking, ‘I’m going to make a big, positive difference today.’ ”

Paul Camuti, Chief Technology and Sustainability Officer





## ENVIRONMENT

# Water



[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

We understand the importance of water to the natural ecosystems and communities in which we operate, which is why we assess our water scarcity risk annually. The World Resources Institute Aqueduct tool allows us to assess enterprise-wide risk, and we currently consider ours to be low. Our continual improvement to operating standards and procedures, including policies for water supply management, storm water management and wastewater discharge management, helped us achieve zero wastewater exceedances in 2023.

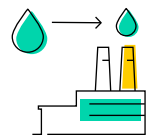
### Local impacts

We commit to achieving net-positive water use in water-stressed areas by 2030. According to the World Resources Institute, a Trane Technologies facility is considered water-stressed if it has a risk score of three or more for Physical Risks Quantity, Physical Risks Quality, Regulatory and Reputational Risks or Overall Risk. Out of our 50 sites reporting water usage, 17 operate in water-stressed areas, and these numbers continue to increase as water becomes more scarce. These sites account for 12% of our total water use in 2023.

For these sites, we have annual localized water reduction targets to advance toward our commitment to net-positive water in 2030. In 2023, we acquired two factories located in water-stressed areas, in Taicang, China, and Conselve, Italy. Our location in Davidson, North Carolina, was reclassified as a water-stressed location after completing the annual reassessment using the World Resources Institute Water Risk Atlas.

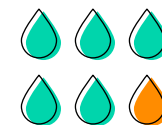
As climate change impacts natural resource availability, we continue to look for water use reduction opportunities for all our company locations. Our objective is to minimize our local impact and actively contribute to preventing additional regions from experiencing water stress.

Through the use of a third-party benchmarking platform and customized GHG dashboards and reports, we are able to track monthly water use and monitor our effluent discharge against local and federal regulatory limitations using the WaterWatch™ module, helping us meet environmental requirements and drive improvement efforts. Read more in [Our impact on natural systems](#).



# 26%

water use reduction at facilities in water-stressed regions since 2019



# 33%

reduction in total water use since 2019



As part of the Alliance for Water Stewardship, we work to improve water conditions in water-stressed areas, which can improve access to safe drinking water. We applied the Alliance's standard to our water-stressed locations in 2023, developing a net-positive water strategy that aligns with our values and goals. Our commitment to water stewardship is an important part of our work to make a positive impact on society and the environment. See more water metrics in our [ESG data center](#) section.

We have completed the CDP Water disclosure annually since 2008. Read our [2023 disclosure](#) for full details on Trane Technologies' approach to water management.



### Leading in responsible water use

We continually work to minimize our water use and protect natural watersheds while looking for ways to capture and return it to waterbodies.

Since 2017, we have operated a rainwater harvesting system at our Waco, Texas, site to reduce the need to purchase water from the local water authority. In 2023, we expanded this system for additional holding capacity and harvested 550,000 gallons of water, representing nearly one-third of the water necessary for our business operations.

Our team in Monterrey, Mexico, installed a biological wastewater treatment plant aiming to achieve net-positive water consumption for production across three plants. The treatment system supplements our condensate recovery system and our rainwater harvesting process. As the Monterrey region faces increasing water shortages, we are rising to meet the challenge.





# Social

We believe that each team member's unique background and perspective strengthen our business and increase innovation. We strive to enrich our team members' lives by fostering an uplifting culture, promoting well-being and engaging with local communities.

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[Global workforce](#) →

[Company culture](#) →

[Diversity & Inclusion](#) →

[Learning & development](#) →

[Corporate citizenship](#) →

[Occupational health & safety](#) →

[Human rights](#) →

[Supplier diversity](#) →







SOCIAL

# Global workforce

GRI 2-7, 2-8, 401-1, SASB RT-EE-000.B, RT-IG-000.B

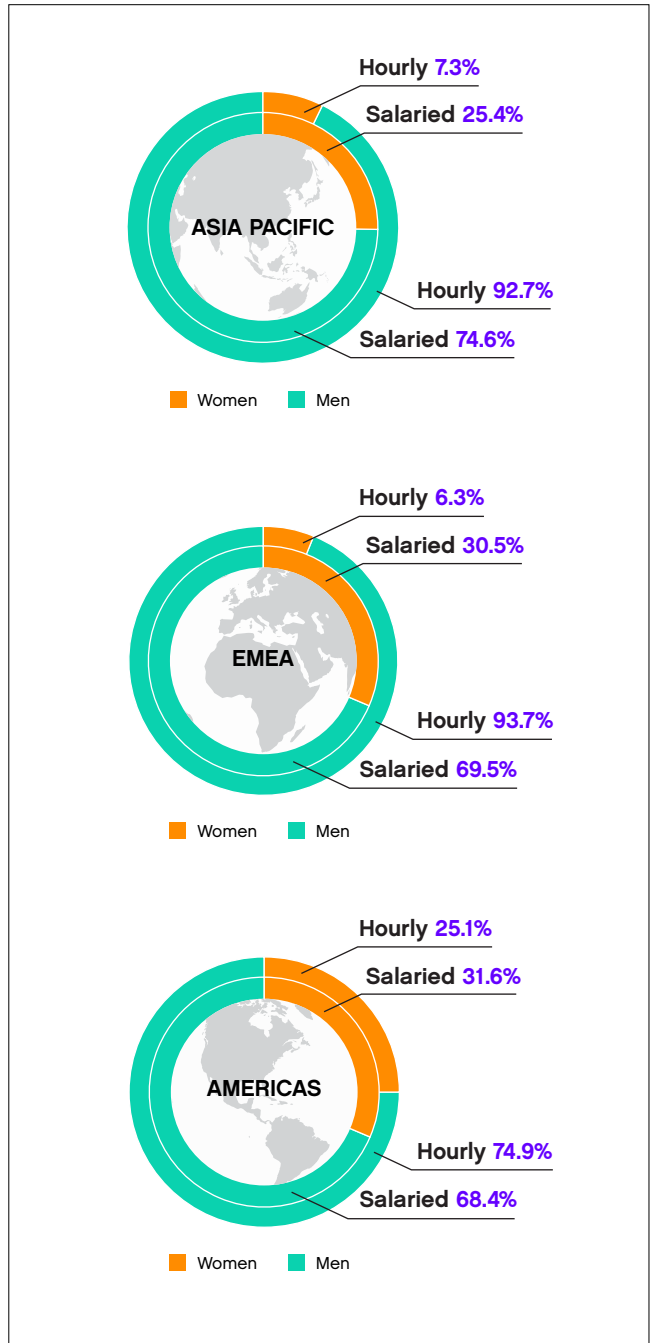
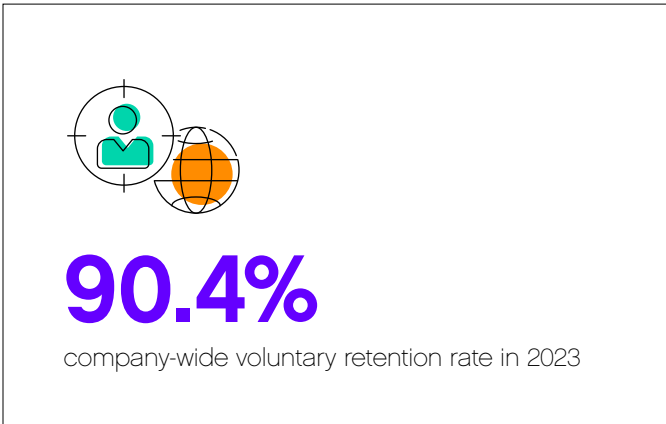
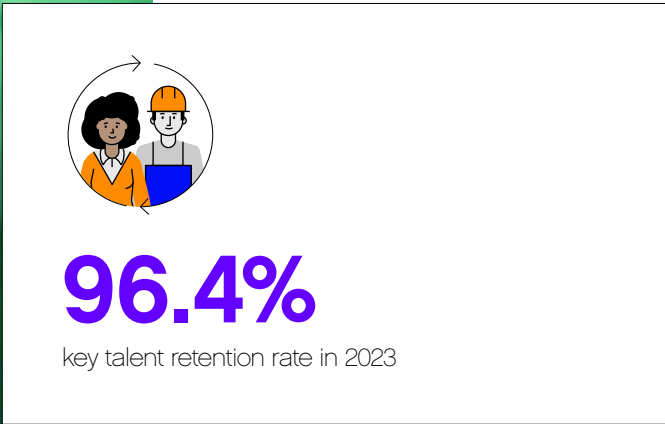
We strive to create an inclusive, uplifting culture that empowers team members to be themselves and boldly share their ideas. Each day, our 40,472 team members collaborate to create a more sustainable world. Our global team is comprised of 21,035 full-time salaried team members and 19,437 full-time hourly team members. Trane Technologies employs people in nearly 60 countries with manufacturing and assembly operations conducted in approximately 50 plants around the world.

Our focus on creating Opportunity for All and our dedication to investing in our people helped us attain a key talent retention rate of 96.4% in 2023. Our company-wide voluntary retention rate was 90.4% and we hired 8,474 new team members in 2023.

Learn more about our global workforce in the [ESG data center](#) section.

“ **Having a personal connection to purpose and sustainability commitments not only provides employees with a common focus, it gives real meaning to the work we do each day.**

Mairéad Magner, SVP and Chief Human Resources Officer







SOCIAL

# Company culture



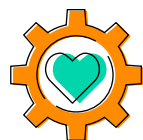
[U.N. SUSTAINABLE DEVELOPMENT GOALS](#) →

GRI 2-23, 2-24, 3-3

We take deliberate steps to cultivate a growth-oriented culture that embodies our leadership principles and encourages our people to boldly challenge what’s possible for a sustainable world. To create this environment, we encourage our people to uplift each other, make a positive impact on our planet and help them thrive at work and at home.

## Employee experience

The experience we provide to prospective and current team members is defined by our employee value proposition (EVP) and shaped by the questions: “why should I come to Trane Technologies?” and “why should I stay?” Over the past two years, we hosted conversations with key employee groups from different areas of our company to focus our attention on what matters most to our people. Three pillars, showcased to the right, make up our EVP, which creates a consistent employee experience.



# 100%

of our team members have access to well-being programs



# 80

average employee engagement survey score in 2023 (out of 100)



### UPLIFTING OTHERS

We lift each other up and care about the success and well-being of others



### MAKING AN IMPACT

We succeed together by striving daily to create a lasting, positive impact on our planet



### THRIVING AT WORK & AT HOME

We thrive, supported by meaningful benefits, compensation and opportunities for rewarding careers



Throughout the year, we hold regular Performance and Development Connections with our team members to help them establish a plan for continued growth, work toward their career goals and thrive. Our performance and development conversations also strengthen our people's connection to our purpose, strategy, leadership principles and the 2030 Sustainability Commitments. In 2023, all salaried employees received regular performance connections and reviews. As part of this process, we ask each Trane Technologies team member to set a goal that describes how they contribute to one of our three sustainability pillars (Gigaton Challenge, Leading by Example and Opportunity for All). Learn more about our three sustainability pillars in the [Sustainability Commitments](#) section.



### Our “No Limit, No Boundary” culture campaign

In 2023, we launched our first culture campaign in the Asia Pacific region, with the theme “No Limit, No Boundary.” The campaign aimed to increase team members’ sense of belonging and pride.

During the campaign, team members watched videos, shared their thoughts on cultural impact topics on our internal social media platform and participated in events to gain a deeper understanding of our company culture through the lens of Diversity & Inclusion. Over 2,200 team members in China, Singapore, Malaysia, Indonesia, the Philippines, Vietnam and Korea participated in the campaign.

### World-class engagement

Each year, we conduct an employee engagement survey to assess how we are delivering against the employee experience. In 2023, 87% of team members participated in the survey. The survey covers a range of themes such as ethics, safety, manager effectiveness, inclusion, career development and work-life balance. We use the survey results to improve our company's practices and understand how we can continue to meet the needs of our workforce.

Our Employee Engagement Index measures pride, energy and optimism; in 2023, we maintained or improved in 97% of our questions. Our overall employee engagement score remained high, with an average score of 80 out of 100. Our Diversity & Inclusion Index improved for the second year in a row by one point to 78 out of 100, and we scored 80 out of 100 in our Sustainability Index, reflecting our efforts to embed our purpose and leadership principles in our culture. According to benchmarks from our third-party survey provider, our employee engagement score placed us in the top quartile of companies surveyed across all industries.

### 2023 employee engagement survey results

Topic	Survey question	Average score (out of 100)
Employee Engagement Index	<b>Pride</b> — “I am proud to work for the company.”	80
	<b>Energy</b> — “I am energized by my work.”	
	<b>Optimism</b> — “I am excited about this company's future.”	
Diversity & Inclusion Index	<b>Belonging</b> — “I feel a sense of belonging at this company.”	78
	<b>Equal opportunity</b> — “Regardless of background, everyone at Trane Technologies has an equal opportunity to succeed.”	
	<b>Respectful treatment</b> — “I am treated with respect and dignity.”	
	<b>Sensitive topics</b> — “At this company, I feel comfortable discussing difficult and sensitive topics.”	
Sustainability Index	<b>Company purpose</b> — “Our company is recognized as a global leader in sustainability.”	80
	<b>Company purpose</b> — “I believe in our company's purpose to boldly challenge what's possible for a sustainable world.”	
	<b>Corporate citizenship</b> — “Trane Technologies does a good job supporting the communities in which it does business.”	



### Employee listening

While our annual employee engagement survey is a key tool for gathering feedback, we also conducted listening sessions in 2022 and 2023, engaging with team members across every region to obtain additional feedback.

We used the feedback to enhance our employee experience and implemented differentiated improvement initiatives for various team member groups. To enhance our hourly workforce's experience, team members worked to implement improvement initiatives in areas such as onboarding, hiring, recognition, manager support, flexibility and autonomy. As part of the improvement initiatives, we:

- Developed a new standard for onboarding at production hourly sites, which all North American manufacturing sites will implement in 2024;
- Launched a pilot addressing childcare access and affordability at two production locations; and
- Deployed mental health training for global people leaders, which was rolled out on a global basis in the fourth quarter of 2023.



## Employee well-being

GRI 401-2, 401-3

Ensuring our team members thrive at work, at home and in their communities is at the heart of our employee experience. To embed wellness into our culture, we provide a diverse range of benefits focused on physical, social, emotional and financial well-being. In 2023, we initiated enhancements to well-being for U.S.-based employees in a variety of ways, including:

- Covering domestic partners and their dependent children under benefits plans regardless of gender identity;
- Expanding our non-union bereavement policy to include the loss of legal guardians, domestic partners and in the case of miscarriage, for which we include equal coverage for the birth mother and spouse or domestic partner; additionally, we expanded bereavement time to cover the passing of a step- or in-law relation, whether connected to the employee, spouse or domestic partner;



- Transitioning the Be Well program to a new platform with enhanced features and functionality that make it easier for team members to earn financial rewards through healthy behavior activities;
- We took a proactive, leader-led approach to introducing the Future of Work, Our Way. In this model, the nature of each role determines the job location and whether the work arrangement is on-site, hybrid, remote within a geography or virtual. Our leaders maintain ongoing communications with our people to enable them to incorporate flexibility into their work arrangements.
- Offering Roth provisions across our 401(k) plans to allow participants to make contributions on an after-tax basis;
- Increasing the 401(k) auto-enrollment deferral election from 2% to 4%, as well as the introduction of a 1% automatic annual increase in deferral elections effective in January 2023 for all salaried and non-union employees; and
- Treating qualified student debt repayment as an elective contribution to the 401(k) plan allows non-union team members to receive matching company 401(k) contributions on those repayments. We recognized that the burden of student debt repayment limits participants' available earnings to contribute toward their 401(k) accounts and provided a solution that offers student debt relief and promotes saving for retirement.

We elaborate on additional 2023 well-being initiatives in the [Parental leave & support](#) and [Tuition support](#) sections.

Our rigorous compensation practices ensure we pay our employees fairly, equitably and competitively across many compensation variables. Our compensation practices are based on external norms, extensive data, internal equity, scope and accountability of jobs, and performance. In the United States, our average hourly starting wages are 200%+ above state minimum wages.

Through competitive, performance-based pay and strong benefits, we strive to ensure our Total Rewards offerings have a balanced structure that supports our employees and aligns with where they are in their careers and in the employee life cycle. We work to ensure our rewards structure incorporates the full breadth of dimensions (compensation + benefits) to deliver a "Livable" wage for our employees so they can thrive at work and home.



### Supporting team members' mental health

We continue to foster an inclusive environment that promotes open discussion of mental health concerns and provides resources, support and coaching to address those concerns. All employees have access to the Mental Health Hub, which provides them with quick access to information, resources and support for themselves, their team members and their families.

To equip our leaders to support their team's mental well-being, we launched the Notice. Talk. Act. At Work training in our Learning Management System in 2023. Participants learn how to identify and respond to potential mental health concerns and gain a deeper understanding of mental health to break down barriers or misconceptions. While the training is optional, we encourage our leaders worldwide to participate and provide the training in 10 languages.



**PARENTAL LEAVE & SUPPORT**

Through our Total Rewards program, we offer competitive parental leave benefits in every market we operate, with unique programs that exceed regulated leave requirements in some countries. For example, in the United States, we supplement the paid maternity leave provided through our short-term disability plan, which provides up to six or eight weeks depending on the type of delivery, with four additional weeks of paid leave to eligible birth mothers. The program also offers birth fathers, adoptive parents, secondary caregivers, foster parents and parents of a surrogate child two weeks of paid leave. In 2023, 20,676 Trane Technologies team members in the United States were eligible for parental leave, with 425 taking leave. Eligible team members include salaried/non-union hourly employees. For union team members, parental leave is a bargained benefit.

We acknowledge that our employees can take various routes to grow their families. For 12 years, we have offered financial assistance for adoption to hourly and salaried team members. In 2023, we announced new benefits that take effect in 2024, including offering our non-union hourly and salaried team members increased financial assistance for adoption and expanded coverage of surrogacy-related costs, as well as additional financial assistance for families adopting a child with special needs. In addition, all employees and spouses/domestic partners enrolled in the U.S. medical plan will be eligible for infertility support. Maternity counseling through delivery will also be made available to all enrolled participants.

In 2023, we explored different ways to support working parents. A lack of accessible and affordable childcare was identified as a top priority by our manufacturing leaders. We piloted childcare support programs in our manufacturing facilities in Columbia, South Carolina, and Hastings, Nebraska. In our pilot, we introduced a childcare concierge service that connects participants with existing childcare providers, and a Dependent Care Flexible Spending Account that enables employees to contribute pre-tax dollars for childcare expenses and includes a monthly company contribution based on the age and number of dependents.

**TUITION SUPPORT**

In 2023, we updated our Tuition Reimbursement Policy to add technical certifications, such as heating, ventilation and air conditioning (HVAC) Certifications and Building Automation Technology Certifications, as qualified programs. We also repositioned the policy to be a tuition advancement, as opposed to reimbursement, to help employees access opportunities for learning by reducing the upfront financial burden. With these changes, 727 team members took advantage of our tuition support opportunities in 2023, which is a 39% increase over 2022. Learn more about other education enrichment opportunities in the [Learning & development](#) section.

Our emphasis on personal growth and commitment to fostering talent also extends to our employees' families. We offer \$2,500 annual scholarships to our team members' dependent children pursuing education beyond high school for traditional degrees, technical programs or trade certifications.



U.S. parental leave return to work rate







SOCIAL

# Diversity & Inclusion



[U.N. SUSTAINABLE DEVELOPMENT GOALS](#) →

GRI 3-3, 405-1

We are committed to cultivating an environment where all team members thrive and can be themselves at work. Each year, we provide opportunities to build inclusion capability and facilitate open dialogue across the enterprise. We also enable our Employee Resource Groups (ERGs) and Inclusion Networks to connect, develop and engage team members across the globe.

We believe that building a diverse team is critical to developing innovative solutions for a sustainable future.

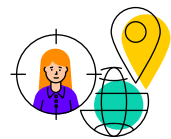
## Diversity & Inclusion governance

The Board of Directors (the Board) governs our Diversity & Inclusion strategy, with the Board's Human Resources and Compensation Committee regularly reviewing diversity, inclusion and other human capital matters. Our Diversity & Inclusion goals are shaped by our internal Diversity Council, a group of global leaders representing many parts of our business. These leaders provide input to ensure that our Diversity & Inclusion goals integrate with our core business practices.

Our Human Resources and Compensation Committee also oversees remuneration linked to Diversity & Inclusion goals. The Annual Incentive Matrix (AIM) for our senior leaders is based on financial performance but also considers our sustainability performance, including progress made on our Diversity & Inclusion initiatives and goals. These goals support our company's ambition and [2030 Sustainability Commitments](#) to advance gender parity in management roles and a diverse workforce reflective of our communities.

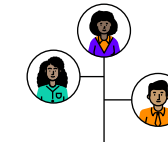
## Our approach to Diversity & Inclusion

Our priorities for Diversity & Inclusion are built upon developing a culture that is inclusive, diverse and creates Opportunity for All. Learn more about our strategies and our approach to Diversity & Inclusion on our [website](#).



# 25.2%

of management positions are held by women



# 37.2%

of our U.S. workforce identifies as racially or ethnically diverse



# Inclusive culture

## EMPLOYEE RESOURCE GROUPS & INCLUSION NETWORKS

Trane Technologies' ERGs and Inclusion Networks serve as empowering spaces for team members who share common dimensions of diversity, as well as their allies. ERGs and Inclusion Networks are open to all team members. They encourage our people to learn about other cultures and respect differences. Learn about our eight enterprise ERGs on our [website](#).

In 2023, our ERGs expanded globally, adding 800 new team members, delivered innovative content and engaged their members in a variety of heritage month celebrations, career development discussions, mentoring programs and recruiting and community involvement events.

To enhance exposure and learning across our ERGs and provide enriching experiences, we regularly rotate the sponsorship of our ERGs among senior leadership. In 2023, the Asian ERG (AERG) and Women's Employee Network (WEN) appointed new executive sponsors. Our Senior Vice President, Chief Communications and Marketing Officer now sponsors the AERG, and our Senior Vice President and Chief Strategy Officer sponsors our WEN.

Inclusion Networks are localized extensions of our enterprise ERGs. With over 14 Inclusion Networks, there are many local opportunities for our people to build community and connections in support of one another and foster inclusion.



### PRIDE celebrates a decade of determination

To mark its 10-year anniversary, our PRIDE (LGBTQ+) ERG celebrated a Decade of Determination with award-winning programming and engaging events.

One of PRIDE's key 2023 initiatives was an engagement at our Pueblo, Colorado, manufacturing plant. The PRIDE steering committee and local Pueblo Plant PRIDE ERG members discussed LGBTQ+ topics with Pueblo team members through an impactful lunch and learn. Additionally, the PRIDE ERG bolstered Trane Technologies' involvement in the Pueblo community by walking in the Pueblo Pride Parade and hosting a Trane Technologies recruitment booth at the festival.

To celebrate a Decade of Determination with team members from across our company, PRIDE secured the rights to an exclusive film, *The Dads*, and hosted a virtual viewing party. *The Dads* is a short documentary featuring six dads from all walks of life as they gather in rural Oklahoma for a weekend fishing trip. As the dads fish, they discuss their love for their transgender children. As part of the event, the PRIDE team hosted a discussion with the film's director, Luchina Fisher, and one of the dads.



### Hosting the 2023 Disability:IN North Carolina Fall Conference

In October 2023, our VisAbility ERG sponsored and hosted the Disability:IN North Carolina fall conference on our Davidson, North Carolina campus. The conference explored how companies use disability inclusion to build an engaged and committed workforce. We hosted sessions on the power of connected leadership, strengthening the talent pipeline through apprenticeship programs, developing ERGs to support employee engagement and cultural transformation and expanding disability-inclusive workforces.

In 2023, Disability:IN recognized Trane Technologies as one of the "[Best Places to Work for Disability Inclusion](#)" for our commitment to equal opportunities and thriving careers for all.





### OPEN DIALOGUE & CONVERSATION: BUILDING ALLYSHIP

Since signing the CEO Action for Diversity & Inclusion pledge in 2017, we have worked intentionally to fulfill the commitment. A key element of the pledge is cultivating environments that support open dialogue around diversity, equity and inclusion.

Each year, we host a CEO Day of Understanding. In 2023, our Chair and CEO and our Vice President, Talent and Organization Capability co-led a virtual conversation with over 3,100 team members. This approach was also leveraged in the Europe, Middle East and Africa region with a Presidents' Day of Understanding. We used these Days of Understanding to share stories on allyship, reflect on our Diversity & Inclusion progress and consider how we can enhance our efforts to create inclusion for all.

During 2023, we also held our third annual Global Diversity & Inclusion Summit, an educational event open to all team members, with Allyship in Action as the organizing theme. Over 2,600 team members attended

the summit and received an update on our progress toward diverse representation, heard from our Group President, Americas, on his allyship journey and learned from an Allyship in Action panel featuring global Trane Technologies leaders.

In addition to our signature events, the ERGs hosted many open dialogues to advance inclusion. They held intersectional conversations on communicating across generations, civil rights and allyship across identities and experiences.

Additionally, we refreshed the Women's Employee Network (WEN) Allyship Program, which facilitates bi-directional allyship between colleagues to create an environment that values, attracts and cultivates diverse talent. This program provides mentors to participants to help support career growth and development while challenging stereotypes and addressing biases. The refresh helped generate greater visibility and increased participation.

## Building Diversity & Inclusion capabilities

We invest in our team members' development to create knowledgeable leaders who reinforce our purpose-driven culture and hold us accountable for making progress on our Diversity & Inclusion goals. Our Diversity & Inclusion learning experiences provide our people with the skills and resources to succeed in their current roles and prepare for future ones.

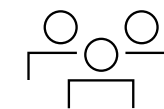
### DEVELOPING KNOWLEDGEABLE LEADERS

In addition to a broad portfolio of Diversity & Inclusion training opportunities, in 2023, we expanded our training and team member accountability for inclusive leadership with the addition of a topical learning module as part of our required annual training. Virtually all salaried team members in the Americas completed the required course in 2023 as part of our annual compliance training. We will deploy the course globally in 2024 as well as others strategically aligned to our business goals.

Additionally, through our Learning Management System, we offered the Inclusive Culture Learning Experience — a comprehensive learning path that teaches inclusivity through self-reflection and real-life inclusive leadership practices. In particular, [The Work of the Inclusive Leader](#) online training helps learners understand the key practices of inclusive leadership: Understand Bias, Value Equity, Partner for Success, Advocate for Belonging, Sponsor and Make Change. Read more about our leadership training in the [Learning & development](#) section.

The Work of the Inclusive Leader module and The Inclusive Leader's Playbook™ are available in languages spoken by 90%+ of our employee population. The Inclusive Culture Learning Experience is available as optional training for all individual contributors in the organization.

#### Our Leadership Principle



We include and uplift one another.

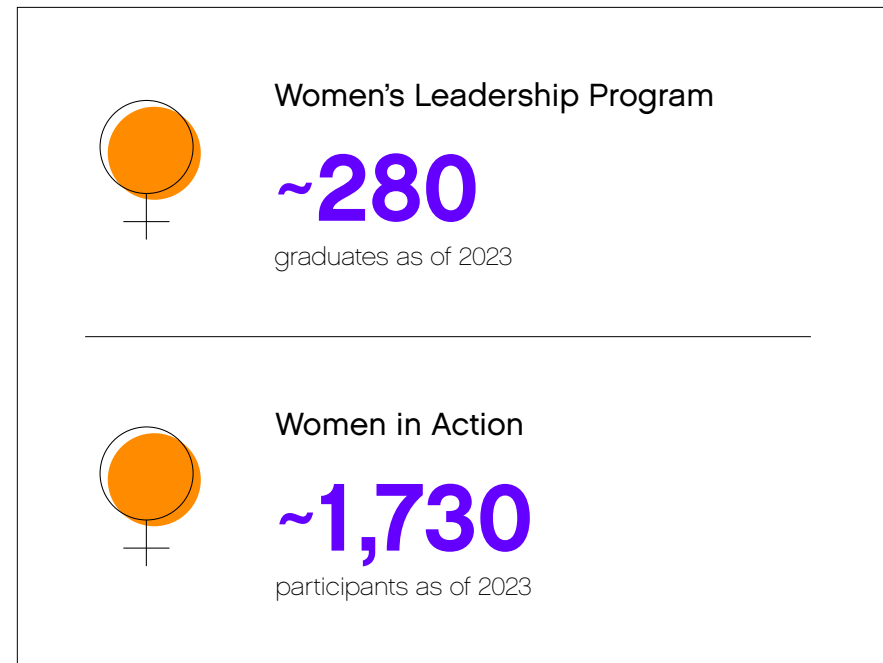


## LEADERSHIP PROGRAMS

Trane Technologies offers many different leadership development programs, including programs open to high-potential leaders from all backgrounds and some targeted to leaders from underrepresented groups. For example, two of the leadership programs we offer are for team members who identify as women:

- Our Women's Leadership Program (WLP) is a six-month immersive, cohort learning program to prepare high-potential women leaders for senior positions. Participants gain individual insights through an executive mentoring partnership and build leadership skills through a variety of learning components, speakers, experiences and assessments. In 2023, 30 leaders completed the WLP, and roughly 280 leaders have completed WLP since its inception in 2013.
- Our Women in Action (WIA) program is a virtual, self-paced cohort program that provides women access to content that promotes the development of leadership skills and addresses the unique challenges faced by women in business. The program was created as part of our 2030 Sustainability Commitments to accelerate women's career development. In 2023, over 300 women participated in the WIA program.

Read more about our leadership programs in the [Learning & development](#) section.



## Building a diverse workforce

We believe that investing in a diverse workforce is an essential catalyst for growth. Diverse teams tap into a broader range of perspectives and solutions, leading to increased innovation and overall success. To increase diverse representation in our global workforce, we attract, hire, retain and advance diverse talent by:

- Expanding our network of recruiting partners;
- Identifying high-performing yet often-overlooked skills-based talent;
- Developing both future and current team members through learning programs and career experiences; and
- Creating meaningful connections through peer and formal coaching, sponsorship and advocacy.

## OUR APPROACH TO RECRUITING

Building a diverse workforce reflective of our communities starts with hiring diverse talent. In 2023, we identified critical roles where we could widen our applicant pools and refined our go-to-market strategies to realize those benefits. We also deepened our adoption of inclusive hiring processes, including:

- Ensuring job descriptions are inclusive and engaging;
- Coaching on and sharing bias reminders before hiring and/or internal movement processes begin;
- Calibrating interview slates to ensure we practice best sourcing efforts and interview the most qualified candidates;
- Creating interview teams/panels with diverse representation; and
- Ensuring we consider all voices when debriefing on candidate interviews for all hiring and promotion decisions.

Furthermore, in 2023, we launched a Bias Interrupter Workshop for approximately 150 of our team members involved in the recruiting process to address 10 critical obstacles to achieving a more diverse and inclusive workforce. Each participant received a Bias Interrupter Communicator Guide that provides practical, ready-to-use responses and proactive solutions to common hiring hurdles. The Guide emphasizes eradicating biases and preconceived notions in job qualifications, candidate assessment and relevant areas, thereby promoting a more inclusive and diverse recruitment process.

To recruit early career and mid-level talent, we also partner with universities and key industry and professional organizations, including:

- Black Women in Science & Engineering (BWISE)
- Corporate America Supports You (CASY)
- National Black MBA Association (NBMBAA)
- Society of Women Engineers
- Women in Manufacturing (WiM)

Additional partners are listed on our [website](#).



## Trane Technologies named a “2023 Best Workplace for Women” by FORTUNE

In 2023, FORTUNE recognized Trane Technologies as one of the “[2023 Best Workplaces for Women](#).” FORTUNE highlights companies that offer increased flexibility, equitable pay and career support to women regardless of their job, role, race, sexual orientation and work status. Companies were also assessed on the workplace gender balance and representation changes as women rise. This award demonstrates our commitment to ensuring that women at Trane Technologies receive equal opportunities and pay and shows potential women hires that they can grow and succeed with our company.





### Connecting to overlooked talent through a skills-based approach

In 2023, Trane Technologies joined the Tear the Paper Ceiling coalition led by Opportunity@Work as the first manufacturing partner. Opportunity@Work's mission is to rewire the labor market to create economic opportunity for workers who are Skilled Through Alternative Routes (STARs). As a Tear the Paper Ceiling coalition partner, we actively work to create more opportunities for workers who are STARs and expand opportunities to qualified talent.

In 2022, we launched our Workforce Innovation team to further focus on developing partnerships, programs and pathways to create Opportunity for All and produce a sustainable workforce for our most critical job roles. We have spent the past 2 years pioneering new pathways to training and career advancement for skills-based talent with programs like the Trane Technician Apprenticeship Program (TAP), which currently has over 80 service technician apprentices participating across the United States, with 37% from underrepresented populations. In addition, Trane Technologies continued its commitment to OneTen, an organization that aims to close the opportunity gap for Black talent in North America.

Read about TAP in the [Trane Technician Apprenticeship Program](#) highlight story.

### Measuring progress

We want our workforce to reflect the diversity of the communities where we live and work. Within our 2030 Sustainability Commitments, we set goals to advance gender parity in management positions and increase the amount of racially and ethnically diverse people in our salaried U.S. workforce.

In 2023, we achieved gender parity on our Board of Directors, with women occupying six out of 12 seats. Additionally, representation of women in management positions increased from 24.2% in 2022 to 25.2% in 2023. In total, women comprise 25.9% of our global workforce.

By 2030, Trane Technologies is committed to increasing the racial and ethnic diversity of its U.S. salaried workforce to 26% to achieve workforce diversity reflective of the broader U.S. population and the communities where we work. The U.S. workforce diversity goal is a 50% increase over the 2019 baseline of 17%. In 2023, we increased racially or ethnically diverse salaried team members in the United States from 19.6% to 20.6%. See more metrics in the [ESG data center](#) section and our published [EEO-1 report](#).







SOCIAL

# Learning & development



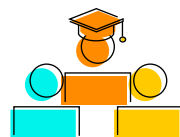
[U.N. SUSTAINABLE DEVELOPMENT GOALS ->](#)

Our comprehensive learning and development programs focus on career advancement and demonstrate our efforts to create growth opportunities for all team members. In 2023, our team members received an average of 11.5 hours of formal training.

We believe that most career learning and development happens on the job. This approach to learning allows team members to develop their skills through hands-on work and receive real-time support from their manager and peers.

**“ We believe growth is not just in the job that you get hired to do. It’s the career opportunities in front of you.**

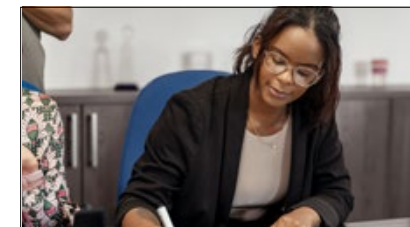
Betsey Strobl, Vice President, Talent and Organizational Capability



# 110

graduates from the Team Leader Development Program for frontline manufacturing associates in 2023

We deliver enterprise-aligned learning and development with clear business impacts by:



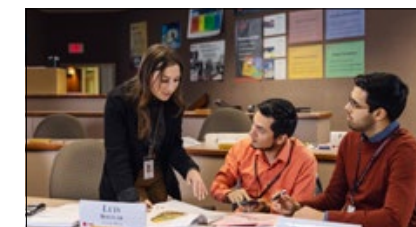
**DEVELOPING AGILE SOLUTIONS TO MEET EVOLVING BUSINESS PRIORITIES**



**ENHANCING TEAM-BASED LEARNING & DEVELOPMENT**



**TRAINING TEAM MEMBERS FOR CURRENT & FUTURE ROLES**



**MENTORING LEADERS WHO BUILD CAPABLE TEAMS**



**SUPPORTING A COACHING CULTURE**



# Learning & development resources

## TRANE TECHNOLOGIES UNIVERSITY

We provide an array of programs to advance our team members' skill sets and develop leaders committed to creating Opportunity for All. Trane Technologies University provides everyone in our organization the opportunity to learn at their own pace with on-demand training or to participate in industry-leading programs.

Team members can access on-demand, technology-enabled training through three internal platforms: our Learning Management System, the "Grow You" channel on our mobile news platform and the Global Learning Library.

## TUITION SUPPORT

We support our team members' ongoing growth and learning in formal educational settings by offering advance tuition support for university and technical trade certifications. Learn more about this unique benefit in the [Employee well-being](#) section.

## SUSTAINABILITY AMBASSADOR NETWORK

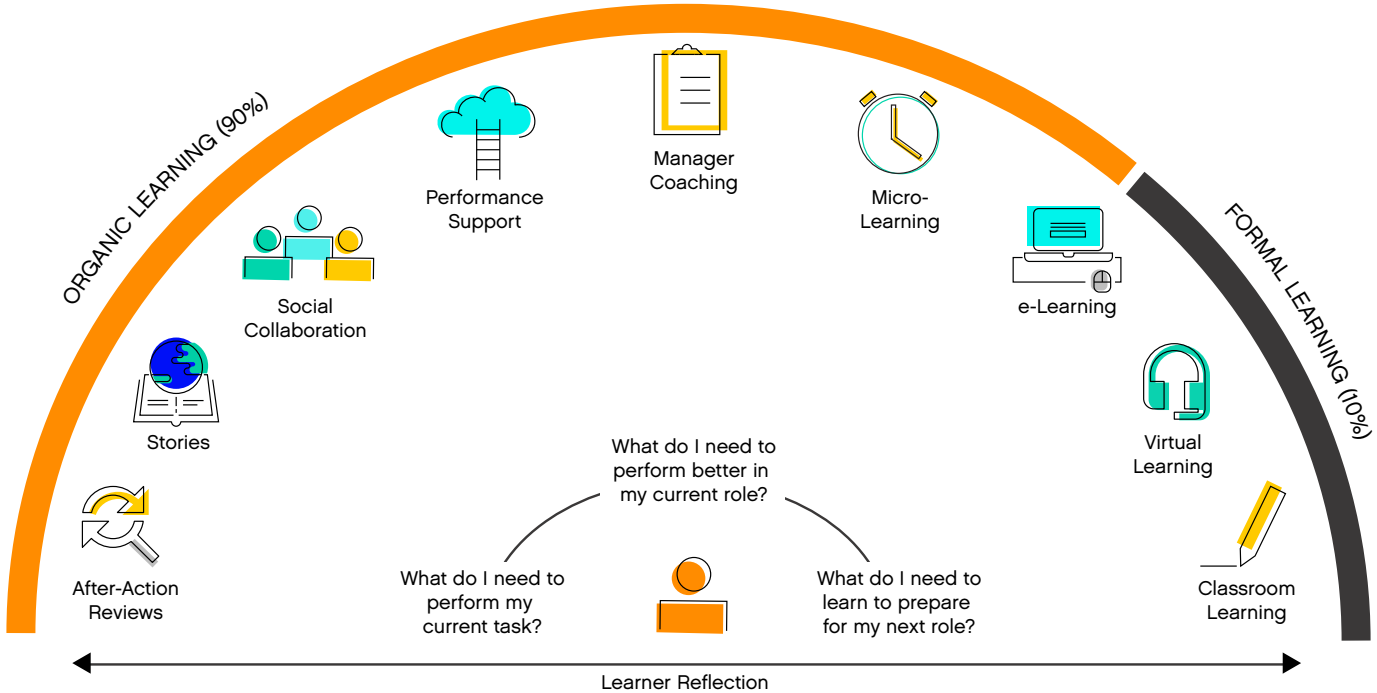
Our internal Sustainability Ambassador Network is open to all employees globally with an interest in increasing sustainability knowledge and championing sustainability action. The network educates our team members on our sustainability strategies with the expectation they will promote and share our sustainability story. We provide ambassadors with continuous learning opportunities on sustainability topics via on-demand learning pathways, virtual RoundTable events, sustainability challenges and newsletters. In turn, the Sustainability Ambassadors share sustainability best practices across the global network while advocating for and promoting our sustainability strategies.

## Leadership training programs

We provide innovative leadership programs that accelerate employee growth at pivotal career points. For example, our 16-week Leading for Impact program offers mid-career, high-potential leaders a chance to improve leadership skills, like working with a growth mindset and communicating effectively. Our immersive, six-month Executive Leadership Program for high-potential executive leaders builds skills in three critical areas: strategy, executive leadership and execution.

We offer the Team Leader Development Program (TLDP) to hourly team leaders focused on daily operations at our manufacturing sites. The cohort-based program engages and empowers frontline leaders to make good business decisions through increased tactical knowledge and problem-solving and team-building skills. Since TLDP's inception in 2014, 29 certified facilitators have taught 994 Trane Technologies participants in 94 locations worldwide. TLDP graduates have lower attrition and higher promotion rates than their peers.

In 2023, we launched the Group Leader Development Program (GLDP) for salaried, frontline leaders in our manufacturing facilities. The GLDP focuses on enhancing participants' knowledge, skills and leadership abilities. Through December 2023, we had more than 150 participants go through the GLDP program, with an expectation to double that number in 2024, globally.





## ENGAGING YOUR EMPLOYEES

Through our Engaging Your Employees learning experience, we teach leaders how to foster a supportive and engaging work environment within their teams. Approximately 3,370 managers have completed the program since its launch in 2013. In 2023, Trane Technologies held 11 global Engaging Your Employees workshops for approximately 190 managers.

## Early career & technical training programs

### EARLY CAREERS PROGRAM

Our [Early Careers Programs](#) leverage relationships with local universities to expand our talent pipeline. The Early Careers Programs include six-month engineering co-ops, three-month functional and commercial sales internships, the Accelerated Development Program (ADP) and the Graduate Training Program (GTP).

Through internships and co-ops, we provide students with opportunities to network and develop professional, technical and business skills. We aim to transfer our interns into full-time roles. Since 2020, 315 students have made the transition from interns to full-time team members.

Established over 40 years ago, the Advanced Development Program (ADP) is a two-plus year rotational program for recent college graduates that has produced hundreds of participants who have contributed to our success with long-standing careers. Participants join Trane Technologies full-time and experience multiple job rotations within a selected professional function to gain broad exposure to our company, culture and leaders and to develop functional and leadership skills. Since 2020 and the inception of Trane Technologies, 114 employees have participated in the ADP globally.

The GTP is one of the longest-running and most comprehensive technical leadership programs in the commercial heating, ventilation and air conditioning (HVAC) industry. The program's reputation draws talent from universities around the world and provides intensive technical, business, sales and leadership training to promising recent graduates. We offer a 20-week GTP Sales Program and a 10-week Contracting Project Manager / Energy Engineering Program. During the programs, graduates are placed in an immersive, on-the-job training role and mentoring period before working independently.

**INDEPENDENT & SYNCHRONOUS LEARNING**      **EXECUTIVE SPONSORSHIP**

**PEER COLLABORATION**      **NEURO-LEADERSHIP**

### Leading for Impact Program

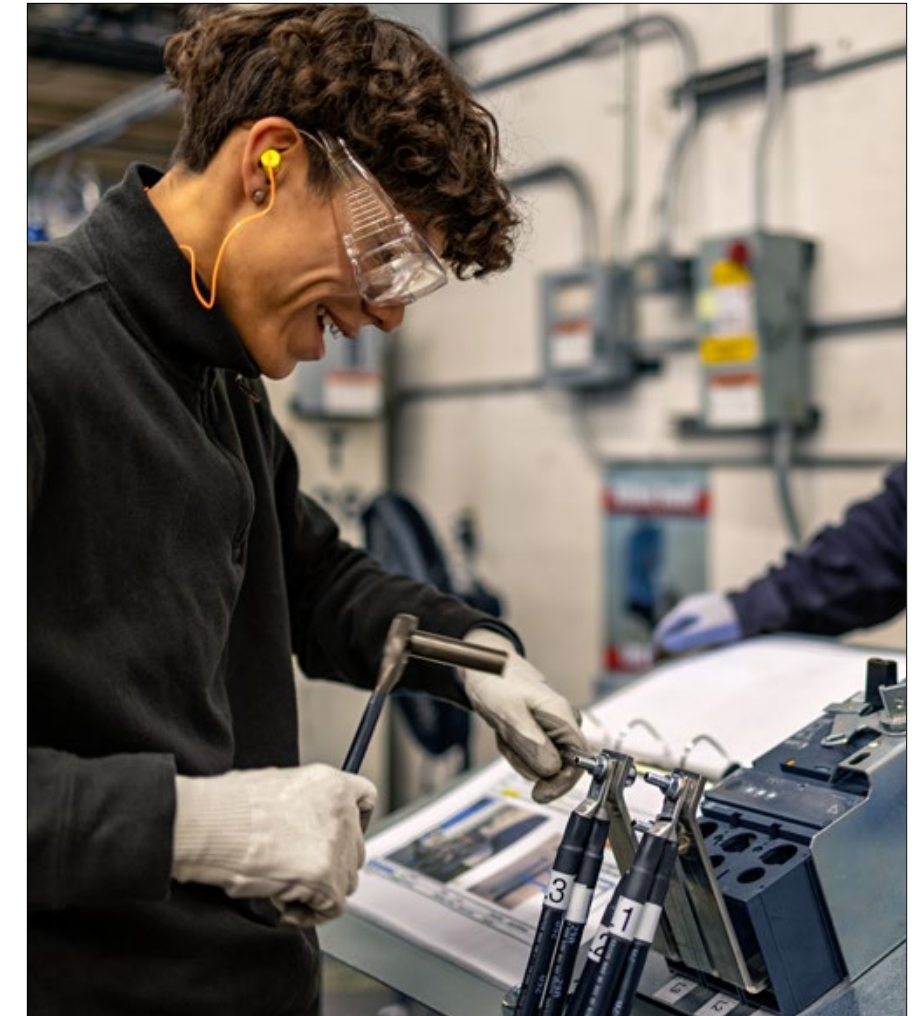
We created this 16-week program for Mid-Career High-Potential Leaders to help them develop a growth mindset, communicate more effectively, build their influencing skills and take steps to own and accelerate their careers.

**EXECUTIVE COACHING**      **360 FEEDBACK**

**DEVELOPING DIVERSE TEAMS**      **ACTION LEARNING**      **STRATEGY INTEGRATION**

### Executive Leadership Program

This 6-month program for Executive High-Potential Leaders develops and accelerates a mindset that boldly challenges what's possible for a sustainable world. Learners build skills in three critical leadership dimensions: Strategy, Executive Leadership and Execution.



## Immersive training centers

We launched and enhanced immersive training stations in a number of our manufacturing plants across the globe, starting with our Tyler, Texas, facility. The training experience includes classroom safety training, as well as hands-on training directly on the assembly line, providing team members with exposure to the different tasks and stations on the manufacturing floor. We also feature these immersive training stations in our onboarding process to ensure new employees understand our tools and processes, allowing them to be successful from day one. In 2023, we launched six new training centers, bringing us to a total of 22 training centers.



## The Trane Technician Apprenticeship Program

Each year, HVAC technician positions become available in the United States, with a significant portion of the openings arising from retirements. In 2023, we launched the [Trane Technician Apprenticeship Program](#) (TAP) to address the skilled labor gap and build a diverse service technician workforce. TAP is a robust, nationwide, four-year paid program designed to recruit and train aspiring HVAC technicians. Our program is nationally registered through the [U.S. Department of Labor](#) and provides comprehensive curriculum, one-on-one mentorship and practical on-the-job training to prepare technicians for rewarding careers. While in the program, apprentices earn a full-time wage and receive annual raises with demonstrated skill attainment. In 2023, we launched two cohorts and welcomed more than 80 apprentices from 26 states.

Two of our apprentices shared their experiences in the cohort:

“ **I came right out of high school, so I’m new to the industry. One of my favorite things about the program is it starts off pretty basic, so if you don’t have much background in the commercial or mechanical side, you’ll learn all about it.**

David, Apprentice

“ **There is plenty of opportunity for growth. If you are a self-starter and like to pursue things of your own volition, this is the place to be. You get a good foundation, a good mentor.**

Cody, Apprentice



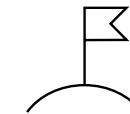
## TECHNICAL TRAINING OPPORTUNITIES

Our Residential HVAC Leadership Education Advancement Program introduces our products, brands, programs, leadership principles and sales tools to Account Managers and Territory Managers. Since we established the program in 2017, 354 people have completed it. In 2023, we held two hybrid cohorts with virtual and in-person training, advancing 68 graduates.

In the United States, the Thermo King® Express Service Bootcamp trains new employees on technical maintenance tasks performed at dealerships. The Bootcamp uses a hybrid training approach to balance hands-on instruction at the Thermo King Education Center in Minneapolis, Minnesota, with online training. The Thermo King training helps our company build a technical talent pipeline while providing new employees with skills to advance their careers.

In Europe, the Middle East, Africa, Australia and New Zealand, full-time team members working as service technicians have on-demand access to Trane Academy’s online learning pathways. The online learning pathways help employees expand their knowledge of HVAC systems and technologies, develop technical and commercial skills and build competencies to help them meet work requirements. In 2023, 698 employees participated in the training. As of 2023, 1,131 team members have participated in the Academy since its inception in 2021. We are proud of our success with Trane Academy, which boasts a satisfaction rate of 98% overall and 99% in 2023.

### Our Leadership Principle



We own our actions and decisions.





SOCIAL

# Corporate citizenship



[U.N. SUSTAINABLE DEVELOPMENT GOALS](#) →

Our belief that we thrive as a business when society also prospers informs our vision for a more sustainable future. This influenced our [2030 Sustainability Commitments](#) to invest \$100 million and 500,000 employee volunteer hours to help create Opportunity for All.

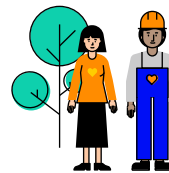
Our corporate citizenship strategy, Sustainable Futures, is defined by three pillars focused on uplifting and supporting students from underrepresented communities throughout their educational journeys.

In 2023, we donated over \$18 million, increasing our philanthropic giving by 19% from 2022. See more metrics in our [ESG data center](#) section.



## \$18.8M+

in philanthropic giving in 2023



## 92,517

hours volunteered by our team in 2023, putting us at 47% of our 2030 goal

## Sustainable Futures pillars



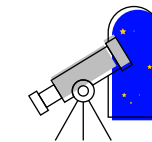
### ENHANCE LEARNING ENVIRONMENTS

- Indoor Environmental Quality solutions and expertise for healthy homes and classrooms to optimize learning.
- Access to healthy food and medicines for students and their families for improved wellness.



### ACCELERATE STUDENT SUCCESS

- Introduction of STEM and sustainability concepts to under-represented populations.
- Enhanced childhood literacy to build skills and love of learning.



### OPEN CAREER PATHWAYS

- Improved perception and familiarity with manufacturing, engineering and technical careers.
- More entryways for diverse workers to access green and STEM professions.



## Governance

Our Global Corporate Citizenship Council oversees our Sustainable Futures strategy and our Trane Technologies Foundation. The Council consists of senior leaders from across our businesses and functions who have extensive knowledge of our business, a strong appreciation for our role in building sustainable communities and a commitment to service.

The Global Council reviews philanthropic grant requests to the Trane Technologies Foundation and inspires employee engagement in our community outreach programs. Supporting the Global Council are three Regional Corporate Citizenship Councils in Asia Pacific; Europe, the Middle East and Africa; and Latin America. The Regional Councils are comprised of local senior leaders who collaborate with the Global Council to ensure consistent execution of our corporate citizenship strategy and programming around the world.

## Employee volunteerism

Our employees' community involvement and volunteerism exemplify our culture of uplifting others. To support our team members, Trane Technologies annually provides employees a fully paid workday to participate in volunteer activities through our Global Volunteer Time Off program.

Our Purple Teams involve our team members around the world in the execution of our Sustainable Futures strategy. Purple Teams champion community involvement, plan volunteer events at the local level and hold our businesses accountable to quarterly internal reporting requirements on our volunteerism targets.

**“ I think our Purple Teams are our Leadership Principles in action.**

Gail Quinn, HR Leader, EMEA



## Purple Teams

While our corporate citizenship strategy is global, we believe the most effective community engagement takes place locally. To advance our Sustainable Futures strategy in communities where we operate, we established our network of Purple Teams. In 2023, our Purple Teams engaged and supported local communities through hundreds of local events and volunteer projects.

One of our Purple Teams in China led a 2-day volunteer trek into rural Guizhou Province to provide STEM education support to three local schools. The parents of the students were incredibly appreciative, inviting many of our volunteers into their homes for meals. Watch the [experience](#).

The Purple Team in Epinal, France, led a dynamic day of hands-on STEM learning for young girls in partnership with a program we fund with Greenlight for Girls, a global champion for girls' STEM education.

In [Galway, Ireland, the local Purple Team](#) hosted a VEX Robotics Competition for primary school-aged students. We first hosted the competition in 2022; and it grew in 2023, expanding from 19 schools and approximately 300 student competitors to 20 schools and more than 400 competitors.

Purple Teams from our commercial sales office, distribution center and manufacturing site in Monterrey, Mexico, joined together to refurbish a local elementary school. Over a weekend, the volunteers outfitted a new computer lab and set up internet access.

In Davidson, North Carolina, the Purple Team hosted a [Stuff the Truck](#) event that challenged employees to fill a 48-foot truck trailer, cooled by a Thermo King® refrigerated unit. Over the course of a week, employees filled the truck with over 6,700 pounds of food and supplies for two local food pantries: FEED NC and Loaves and Fishes.



To heighten the spirit of volunteerism throughout our company, in 2023, we created a What's Your Number? campaign, which asked employees to pledge the number of hours they planned to volunteer during the year. The initiative generated individual and team pledges from six to 600 hours and sparked deeper conversations about ways to engage with our communities.

We track volunteer hours globally through an online platform, which also serves as a hub where team members can promote volunteer opportunities and make donations. In 2023, 10,402 Trane Technologies team members around the world completed 92,517 volunteer hours in their local communities, putting us at 47% of our 2030 goal.

### 2023 employee community engagement data

**10,402**

volunteer participants

**92,517**

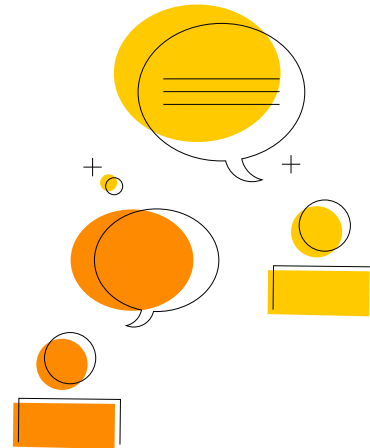
total hours volunteered

**26%**

of team members participated in community or sustainability initiatives

**\$2,508,135**

value of volunteering



## Our partners

To amplify our Sustainable Futures strategy, we work with a growing network of non-profits around the world whose expertise and commitment improve outcomes for underrepresented students and communities. In 2023, we continued to expand several existing partnerships, including our three-year, million-dollar grant with [Project Scientist](#). In 2023, we provided Project Scientist with access to five of our campuses for two-week STEM camps, hosting 621 girls and engaging 168 employee volunteers.

We also continued our long-term sponsorship of the [National Coalition of Certification Centers \(NC3\)](#), a trade industry network that provides teachers and students in over 1,000 U.S. schools with free career and technical education certifications. Students can pursue certifications to gain access to careers in the heating, ventilation and air conditioning (HVAC) and transport refrigeration industries.

Additional examples of our partnerships are included below. Visit the [Charters & partnerships](#) section of the report to learn more.

### DISCOVERY EDUCATION

In 2023, we started the second year of our three-year partnership with [Discovery Education](#). Our program expansion resulted in increased use of the custom STEM and sustainability teaching tools that we developed for educators and our employee volunteers.

In 2023, we introduced three new features in our [Video Topic Series](#). The new videos cover indoor air quality, food waste and greenhouse gases and showcase a young changemaker who is leading sustainable action in their community, complemented by expert perspectives from Trane Technologies' leaders. Our programming helps students understand the actions causing the three issues, how the issues impact them and how they can drive improvement. We also launched resources for students to take home after each lesson to continue conversations with their families.

By the end of 2023, our content had reached more than 270,000 U.S. students in predominantly Title I schools, educating a new generation on the critical issues affecting our planet's long-term health and encouraging participation in creating tomorrow's solutions.



### THE ROC

The [ROC's](#) mission is to recruit, educate and mentor local high school students in the Charlotte region of North Carolina. Aligned with our Sustainable Futures objective to open career paths for students, our new partnership with the ROC supports HVAC training, certification and paid internships for high school students in local Title 1 schools. Trane Technologies donated equipment for the program and provides interactive learning sessions with our employees to help students prepare for working in the field.

### EUROPEAN SCHOOLNET

To foster sustainability education, Trane Technologies funded and provided programmatic support for the 2023 Nature-Based Solutions in Education Competition, hosted by [European Schoolnet](#), a non-profit network of 34 European Ministries of Education, based in Brussels, Belgium. Our teams evaluated the 109 competition entries from primary and secondary schools across Albania, Greece, Turkey, Serbia and Ukraine, among other European countries.

### RIBBIT NETWORK

In 2023, Trane Technologies funded and distributed hundreds of [Ribbit Network](#) carbon dioxide sensors to elementary schools in North America. Our leaders were very involved in the effort, helping build the sensors during our annual leadership conference. The Ribbit sensors are designed to be kid-friendly educational tools, making it easy for students to learn about carbon emissions while also helping schools monitor and report on their emission activity. Ribbit Network's mission to engage youth in the decarbonization movement through education and local data gathering aligns with our Sustainable Futures strategy.





SOCIAL

# Occupational health & safety



[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

Trane Technologies fosters a safety-focused culture committed to providing our team, and those who work with us, the tools, resources and training they need to do their jobs safely and effectively. We aim to achieve zero injuries and zero incidents across our company and employ a proactive occupational health and safety (OHS) approach to mitigate safety incidents before they happen.

Our robust OHS strategy involves team members at all organizational levels, including our Chair and CEO. We engage management and team members through our Behavior Based Safety program, which offers open discussions on work-related hazards and safety. CEO town hall meetings and monthly meetings at both the facility and service organization levels raise awareness of safety risks, share best practices, reinforce expectations and promote preventive measures.

## Tracking our OHS metrics

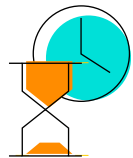
SASB RT-IG-320a.1

We track safety metrics and incident data by location, business unit and at the enterprise level to provide accountability, focus our efforts on achieving our OHS goals and help us evaluate and identify opportunities for improvements. Analyzing quantitative metrics and qualitative feedback from team members influences updates to our OHS policies, education and training.

Our 2030 goal is to achieve and maintain world-class safety performance across all industries, defined as a lost-time incident rate (LTIR)<sup>1</sup> of 0.06 and a total recordable incident rate (TRIR)<sup>2</sup> of 0.60. In 2023, we achieved an LTIR of 0.10, which is equivalent to our 2019 baseline, and a TRIR of 0.83, which is equivalent to our 2019 baseline. We use a third-party benchmarking platform to compare our safety performance against our industry's safety performance. Further review our OHS metrics in the [ESG data center](#) section.

1 Injuries resulting in lost labor time x 200,000 / total hours worked by employees.

2 Recordable injuries x 200,000 / total hours worked by employees.



# 0.10

lost-time incident rate per 200,000 hours worked in 2023, world class performance compared to peers



# 0.83

total recordable incident rate per 200,000 hours worked in 2023





## Incident prevention & response

We take a proactive incident mitigation approach by looking for risks and developing solutions before a problem occurs. If an incident occurs on the job, we seek immediate medical care for the team member and take temporary containment actions as needed. We conduct full investigations into the incident with root cause analysis and take corrective actions where appropriate. Our Chair and CEO is informed of every lost-time incident and assigns accountability for and receives updates on incident response.

Our OHS auditing program follows U.S. Occupational Safety and Health Administration requirements and incorporates our internal Environmental, Health and Safety (EHS) management guidelines, which often go beyond regulations. As part of our audits, we look for safety violations and workplace hazards that could endanger personnel. When our audit team identifies an OHS risk, we mandate the facility take corrective action to enhance safety.

We continuously monitor performance on key safety indicators through our OHS management system. In 2023, we revised our existing OHS risk assessment process, with a focus on controlling or eliminating high-risk exposures in the workplace.

We use a 100 Days of Safety Campaign to promote safety expectations and best practices to reduce OHS risks. The campaign takes place during our peak season, which occurs during the hottest months in North America — June to August — and focuses on topics such as crisis management planning, ergonomics, management of change, personal protective equipment, driving and travel safety and safety concern reporting. We also conduct an annual Winter Safety Campaign focused on educating sites on emergency preparedness and risks and hazards associated with winter weather, such as winter driving and slip, trip and fall prevention. In addition to the 100 Days of Safety and Winter Safety Campaigns, our global EHS teams regularly share materials on common health and safety risks and promote safety training.

**“ Nothing is more important than the safety of our people.**

Holly Paeper, President, Commercial HVAC Americas



## Raising hand safety awareness

Every day, our people use their hands in everything from building to manufacturing to installing our innovative products. To address the criticality of hand safety and raise awareness of the significant personal and work-related consequences of hand injuries, we started 2023 with our Hand Safety Campaign. During the first quarter, we published six engaging videos and informational materials on our internal communications channel, asking our team members to consider how the loss of one or both of their hands would impact their lives. The posts garnered over 11,000 views and sparked conversation on safety standards across our organization. They also reminded team members of the importance of proper safety gear and adherence to procedures. We view our Hand Safety Campaign as a success based on the strong engagement and interaction the posts received and the 8% reduction in hand injuries in 2023.





SOCIAL

## Human rights

GRI 2-23, 2-24

We operate with integrity and uphold the highest standards for safeguarding human rights in our operations and value chain in alignment with our leadership principles. Our [Global Human Rights Policy](#) states our commitment to human rights and details the fundamental behaviors, rules and legal requirements for our company. Our policy prohibits child labor, forced labor, discrimination and harassment in the workplace and addresses freedom of association, work environment standards, compensation and employee privacy. It also covers our expectations for our business partners and suppliers.

### Global Human Rights Policy

An internal team of Legal and Human Resources executives — including the Vice President and Deputy General Counsel, Labor and Employment; Vice President and Deputy General Counsel, Global Ethics and Compliance; and Vice President of Talent and Organizational Capability — own the Global Human Rights Policy. Our Chair and CEO signed our Global Human Rights Policy, indicating that our focus on protecting human rights starts at the top.

We take enforcement of our Global Human Rights Policy seriously and require employees to immediately report suspected human rights violations via Trane Technologies' Ethics Helpline, as outlined in our Code of Conduct. We do not tolerate retaliation against anyone who raises concerns about possible violations of our policy. Each reported incident is investigated, and violations of our policy can result in disciplinary action, up to and including employment termination.

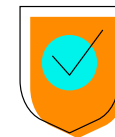
Our policy aligns with the stringent standards set forth by the International Labor Organization's (ILO) Declaration on Fundamental Principles and Rights at Work and the United Nations Universal Declaration of Human Rights. Additionally, as a signatory of the United Nations Global Compact (UNGC), we address the [UNGC Ten Principles](#)' human rights and labor principles in our policy. The Ten Principles provide a global framework for corporate responsibility.

Our Global Human Rights Policy also includes our [Modern Slavery and Human Trafficking Statement](#), guided by ILO conventions 29 and 105, and outlines our steps to ensure compliance. We further address child labor with the guidance of ILO convention 138.



# 100%

of global salaried team members received anti-harassment training in 2023



# 100%

of our global salaried team members in Legal, Human Resources and Global Integrated Supply Chain received anti-human trafficking training in 2023





### Business Partner Code of Conduct

Our [Business Partner Code of Conduct](#) (BPCoC) communicates our commitment to human rights in our global supply chain and our legal, moral and ethical standards for partners conducting our affairs. It applies to all the entities we rely on to deliver our products and services globally. To ensure accessibility, our BPCoC is available in nine languages. Additionally, our supplier contracts contain standard contract language that requires suppliers to comply with our BPCoC and uphold fundamental human rights.

To ensure compliance with international trade laws and regulations, we engage select suppliers and business partners in risk-based due diligence. Our risk-based due diligence approach differs based on the role of the business partner in our value chain. For example, our sales-facing business partners go through our business partner vetting process, which is highly focused on corruption risk. We require our direct materials suppliers and some suppliers of higher-risk services to complete the Slavery & Trafficking Risk Template, which is an industry-standard template designed to help companies with their supply chain modern slavery due diligence. These processes allow us to gather information on Code of Conduct and BPCoC adherence, which is used to assess our human rights policies and identify areas for improvement.

The BPCoC covers the following topics:

- Legal requirements;
- Discrimination;
- Wages and benefits;
- Child labor;
- Freedom of association;
- Limitations on gifts and gratuities;
- Forced labor — physical coercion;
- Antitrust and competition laws;
- Human rights;
- Environment;
- Health and safety;
- Anti-corruption and bribery;
- No retaliation;
- Confidentiality;
- Global trade compliance; and
- Management system.

Read more about our supplier assessment and shared sustainability goals in the [Supply chain transparency & performance](#) section.

### Training

Salaried team members are required to complete Code of Conduct training annually and hourly team members are required to complete the training biannually. All team members attest that they will uphold our Code, which includes our Global Human Rights Policy. Additionally, 100% of our global salaried team members received anti-harassment training in 2023. Read more about our Code of Conduct and anti-harassment and non-discrimination policies and trainings in the [Business integrity](#) section.

Based on their job function and associated risks, global salaried team members in Legal, Human Resources and Global Integrated Supply Chain must also complete a training course on anti-human trafficking annually. In 2023, 100% of global salaried team members in the specified functions completed the anti-human trafficking training course.





SOCIAL

# Supplier diversity

12 

[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

Developing a diverse supply chain increases our resilience, provides access to innovative perspectives and cutting-edge ideas and drives economic growth and development in the communities we serve. As part of our global integrated supply chain strategy, we actively partner with qualified, experienced and value-driven suppliers of all backgrounds. Our emphasis on supplier diversity starts with our [CEO Supplier Diversity Commitment Statement](#) issued by our Chair and CEO. We are committed to working with minority-owned, women-owned, veteran-owned and LGBTQ-owned businesses and businesses owned by people with disabilities.

We share information on our supplier diversity commitment with Tier 1 suppliers during the procurement process. We also ask that they share their diversity spend (Tier 2) to encourage sourcing from diverse-owned businesses. Our robust procurement process identifies and pre-qualifies diverse-owned businesses during our supplier evaluation process. We also offer training and mentorship to diverse-owned suppliers to enhance their capabilities. In 2023, we added 91 new diverse-owned suppliers, representing \$12 million in spend, which brings us to over \$525 million in spending on goods and services with diverse suppliers.



## \$525M+

spent on goods and services from diverse-owned businesses in 2023



## 91

new diverse suppliers added in 2023



### EMBEDDING SUSTAINABILITY

## Meaningful merchandise

When our **marketing team** was preparing to refresh the selection of branded Trane Technologies merchandise available in our company store, they took the opportunity to align the options with our sustainability goals. Working with our **procurement team**, they carefully curated products that were sustainably sourced, eco-friendly and recyclable, and whenever possible, selected items from vendors that are diverse-owned and operated. This included merchandise with Forest Stewardship Council (FSC) certified paper, compostable ink, recycled polyethylene terephthalate (RPET) products and apparel that uses recycled water bottles and pre-consumer cotton that otherwise would have been waste.

We work alongside organizations that increase supplier diversity. For example, we develop and deliver virtual training on supply chain risk and sustainability to minority-owned businesses with our partner, TriState Minority Supplier Development Council Centers of Excellence. We also sponsor the U.S. Pan Asian American Chamber of Commerce's Supplier Diversity Champions program, which provides tools to nurture organizations' supplier diversity programs and supports the certification of diverse businesses.

Learn more about our Supplier Diversity program on our [website](#) and read more about our dedication to Diversity & Inclusion across our business in the [Diversity & Inclusion](#) section and our supply chain practices in the [Supply chain transparency & performance](#) section.



# Governance

Through a comprehensive governance framework, we manage our environmental, social and governance strategy, monitor our performance and hold ourselves accountable to our 2030 Sustainability Commitments.

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[ESG management](#) →

[Business integrity](#) →

[Environmental, health & safety management](#) →

[Public policy](#) →

[Charters & partnerships](#) →

[Memberships](#) →





## GOVERNANCE

# ESG management

GRI 2-9, 2-10, 2-11, 2-12, 2-13, 2-14, 2-17, 2-18

We align our environmental, social and governance (ESG) practices with our purpose and strive to set the standard for best practices in our industry.

Our Board of Directors (the Board) views ESG leadership as a core element of Trane Technologies' business strategy. The Board closely monitors and addresses ESG-related risks and market opportunities and assures management implements appropriate mitigation strategies. Responsibility for ESG matters has been delegated across several Board committees. The committees track ESG-related risks, opportunities, trends and performance and regularly report findings to the full Board. Learn more about our risk management practices in the [Business integrity](#) section.

The Board's oversight and strategic direction helps hold us accountable for embedding strong ESG practices in every facet of our business.

## Board oversight

Our independent Directors serve on several Board committees focused on key facets of our business, including the Sustainability, Corporate Governance and Nominating Committee; the Audit Committee; the Finance Committee; the Technology and Innovation Committee; and the Human Resources and Compensation Committee.

The Sustainability, Corporate Governance and Nominating Committee evaluates ESG trends and issues and recommends sustainability efforts and corporate governance matters to the full Board. The committee monitors the development and implementation of ESG policies and tracks our performance against ESG objectives, including climate change impacts. Their decisions and guidance influence our approach to climate change risk assessments and our sustainability goals.

Regarding corporate governance, the Sustainability, Corporate Governance and Nominating Committee reviews and updates our corporate governance principles. The committee also oversees performance evaluations for the Board, committees and management, and conducts an annual self-evaluation.



## Introduction of new Board Directors

With the retirement of three of our tenured Directors in 2023, our Board welcomed two new Directors. In April, John Hayes, Chairman and former President and CEO of Ball Corporation, joined Trane Technologies' Board, and in October, Ana Paula Assis, the Chair and General Manager of IBM in Europe, the Middle East and Africa, joined the Board. When nominating the new Directors, our Sustainability, Corporate Governance and Nominating Committee considered how varied perspectives and experiences can strengthen our business' resilience. For example, the Committee recognized that Ms. Assis brings over 25 years of international business leadership experience in the Information Technology (IT) and solutions industry to Trane Technologies. Similarly, Mr. Hayes brings more than 30 years of leadership experience in global industrial markets. With Mr. Hayes and Ms. Assis joining as Directors, our Board now consists of 50% representation by women and 92% independent Directors.



The Audit Committee oversees the integrity of our financial statements, including accounting policies and financial reporting, as well as our compliance with all applicable laws, regulations and corporate policies. It reviews and discusses significant ESG reporting and disclosure developments, including legislative and regulatory developments, with management and independent auditors as applicable. The Audit Committee also partners with the Sustainability, Corporate Governance and Nominating Committee to review information to be included in our ESG disclosures within our periodic financial reports, the alignment of our financial reporting and ESG disclosures and the internal controls and procedures related to ESG disclosures, including any assurance provided by the independent auditor or other third-party with respect to ESG disclosures. Furthermore, the Audit Committee, the Sustainability, Corporate Governance and Nominating Committee and Human Resources and Compensation Committee partner to review human capital management disclosures included in our Form 10-K.

The Finance Committee makes recommendations to the Board on the management of financial resources and major financial strategies and transactions. It approves the annual financing plan and financial risk management activities.

The Technology and Innovation Committee supports the Board in its oversight of our products and innovations aimed at addressing climate change, greenhouse gas (GHG) emissions, energy efficiency and product life cycle and materials. Additionally, it assists the Sustainability, Corporate Governance and Nominating Committee in its review of environmental and sustainability practices as well as Environment, Health and Safety policies as needed. The committee also reviews the transparency and performance of our supply chains.

The Human Resources and Compensation Committee focuses on executive compensation and employee benefit programs. In particular, the committee reviews key human capital management initiatives related to leadership talent recruitment and retention, Diversity & Inclusion, pay equity and hourly wages. The committee also sets, reviews and approves annual financial targets and ESG factors for our Annual Incentive Matrix (AIM) and has oversight of our clawback policy, which requires our company to recover erroneously awarded incentive-based compensation.

All committees have formalized, Board-approved [charters](#) detailing their responsibilities. Each committee reviews its charter at least annually and may undertake additional periodic review if the committee deems necessary.

### ANNUAL INCENTIVE MATRIX (AIM)

One of the primary components of our executive compensation program is our AIM remuneration structure. The AIM provides our top executives and approximately 2,900 leaders with clarity on their ability to earn an annual variable cash incentive based on strong performance relative across several metrics, including a financial score, an ESG Modifier and individual performance scores. The AIM financial score is calculated by adjusting the Financial Metrics based on ESG Modifier performance and multiplying by the individual's performance against pre-defined objectives.

The ESG Modifier is a performance factor that includes four environmental, sustainability and Diversity & Inclusion objectives: internal GHG reduction, external carbon emissions reduction, an increase in representation of women in management and an increase in racial/ethnic diversity in salaried positions in the United States. These performance factors are considered in conjunction with the Human Resources and Compensation Committee's holistic review of our key accomplishments and actions taken during the year to advance our ESG performance and progress toward our 2030 Sustainability Commitments. Our [2023 Annual Report](#) includes more information about our AIM.



# Transforming Board ESG Oversight

With the growing emphasis of environmental, social, and governance (ESG) issues in recent decades, boards should assess how they are approaching ESG matters and consider what constitutes robust ESG oversight. Two seasoned business leaders—an ESG advisor to CEOs and boards of directors for the past 30 years and a senior executive of global companies—share their insights about ESG transformation.

By Gib Hedstrom and Paul Camuti



## National Association of Corporate Directors spotlights Trane Technologies' ESG governance structure

*Directorship* magazine featured our Board's approach to ESG oversight as a cover story. NACD recognized the Board's governance structure and processes as key differentiators that strengthen our ESG governance and detailed the actions we take to develop robust ESG oversight. For example, NACD highlighted that our Board spends significant time on ESG topics at every meeting, and material ESG issues guide strategic planning and capital allocation.

We are honored NACD chose to feature our Board as an example of robust ESG governance. Read the full story [here](#).



## Materiality

GRI 2-29, 3-1, 3-2

Conducting a formal materiality process helps us understand the most salient ESG topics to our business and its stakeholders. In 2022, we conducted a materiality assessment and updated our topics to identify those most material to our company and to inform our ongoing ESG strategies. See our materiality assessment methodology and materiality matrix on our [website](#).

We take an active approach to maintaining, managing and monitoring all ESG topics relevant to Trane Technologies and acknowledge that our focus on these topics may shift over time due to stakeholder interests or business opportunities, among other factors. We intend to update our materiality assessment regularly to ensure our ESG strategies remain relevant, targeted and impactful.

Materiality, as used in this report and sometimes referenced as “ESG materiality,” is different than the definition used in the context of filings with the Securities and Exchange Commission (SEC). Issues deemed material for ESG purposes may not be considered material for SEC reporting purposes.

Examples of material topics in 2023 include:

- Greenhouse gas (GHG) emissions;
- Sustainable product design & life cycle;
- Business integrity;
- Energy;
- Technology & innovation;
- Climate risk; and
- Diversity & inclusion;
- Company culture.
- Energy efficient & low emissions products;

We are committed to reporting on our material topics and continually enhancing our disclosures. This ESG Report outlines our management approach, data and initiatives for each material topic. We also choose to report on topics beyond our material topics.

## LOOKING AHEAD

The sustainability regulatory landscape continues to evolve and mature. To prepare for the upcoming reporting requirements associated with the Corporate Sustainability Reporting Directive (CSRD), Trane Technologies will complete its inaugural double materiality assessment in fiscal year 2024. The assessment aligns with the requirements established by the European Sustainability Reporting Standards (ESRS) that require companies to evaluate material topics from both an inside-out (impact) and outside-in (financial) perspective. Once complete, we will use the assessment’s results to inform our ESRS disclosures for the fiscal year 2025 reporting cycle. We will continue to monitor reporting regulations in the U.S. and other global jurisdictions to ensure alignment with future requirements.

## Programmatic ESG Management

### EXTERNAL ADVISORY COUNCIL ON SUSTAINABILITY

Our management and leadership teams consult our external [Advisory Council on Sustainability](#) for guidance on ESG topics and emerging issues. The Advisory Council on Sustainability is a group of independent thought leaders that provide insights on the impacts of climate change, infrastructure development, energy policy, circular design, social progress and emerging technology, among other topics. The Council helps us understand these issues’ impact on our operations and helps us tailor our strategies to create more innovative products and solutions. In addition to consulting our Advisory Council on Sustainability, we participate in global initiatives to learn about climate change risks and solutions and better inform our strategy. See a full list of our [Charters & partnerships](#) for more detail.

### CENTER FOR ENERGY EFFICIENCY & SUSTAINABILITY (CEES)

Since 2010, our [Center for Energy Efficiency & Sustainability \(CEES\)](#) has been focused on embedding sustainability in our everyday operations and culture. CEES aligns our internal ESG activities with external stakeholders’ expectations. CEES also facilitates our work with government agencies, non-governmental organizations, universities and industry-leading groups. The team monitors and discloses progress against ESG commitments while prudently tracking emerging requirements and ESG trends. Outside CEES, our regional business sustainability councils create business-specific sustainability strategies to support our 2030 Sustainability Commitments. We encourage the expansion of these councils, as their creation allows each business to find its own path to our sustainability goals.

## CENTER FOR HEALTHY & EFFICIENT SPACES (CHES)

Our [Center for Healthy & Efficiency Spaces \(CHES\)](#) team focuses on solving challenges related to indoor environmental quality, health issues and energy efficiency. CHES partners with businesses, NGOs, start-ups and municipalities to develop and use its deep understanding of indoor air quality, including advanced systems and connected building technology, to solve clients’ immediate challenges and achieve long-term goals. Additionally, an external Advisory Council on Healthy Spaces supports CHES. The Council includes experts in medicine, epidemiology, education and policy.



### EMBEDDING SUSTAINABILITY

#### Finance

As the sustainability and integrated disclosure landscapes evolve, our **Finance team** is developing processes to further incorporate sustainability considerations into our financial strategy and decisions. They work with our **operations teams** and key business functions to test the effectiveness of controls over the reporting of ESG data. Together with our Center for Energy Efficiency & Sustainability, the team is also preparing Trane Technologies to comply with global reporting requirements, including the European Union’s Corporate Sustainability Reporting Directive (CSRD), which requires companies to report on the environmental and social impacts, risks and opportunities associated with their activities.

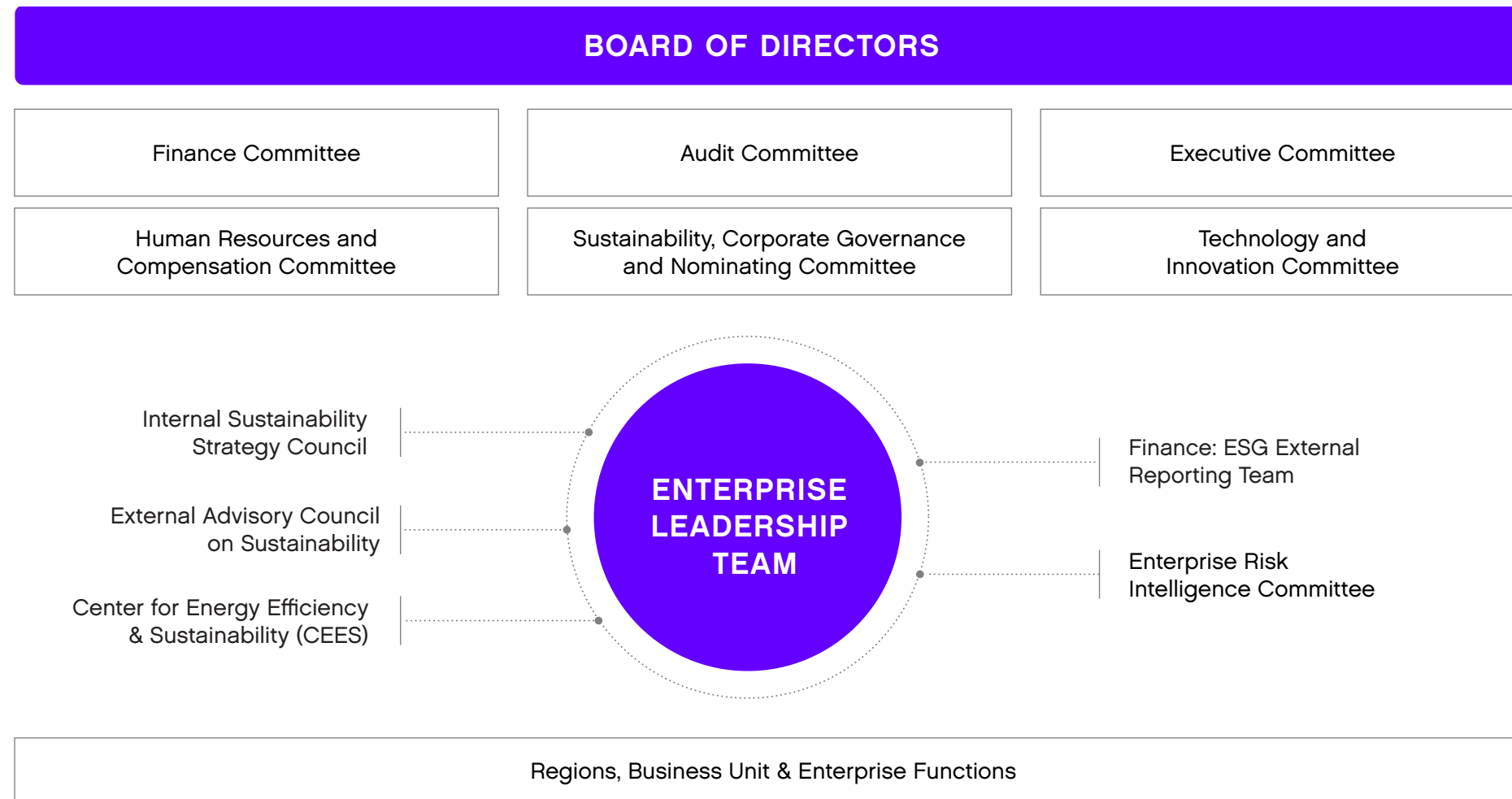


## ESG REPORTING OVERSIGHT

In 2023, multiple jurisdictions proposed legislation with ESG reporting requirements. To best position Trane Technologies for compliance with the various disclosure requirements, we created the ESG External Reporting Leader role.

The ESG External Reporting Leader is responsible for the global effort to analyze sustainability-related financial reporting requirements and will guide how we comply with requirements to ensure a consistent approach across

international jurisdictions. The ESG External Reporting Leader will oversee the design of systems, processes and controls related to ESG data governance, reporting and disclosures. They will work closely with the CEES team to establish efficient and effective methods of collecting and reporting ESG data. To ensure we consistently comply with ESG reporting requirements as they evolve, this role will establish and oversee processes to monitor and maintain awareness of industry, accounting and regulatory ESG requirements, issues and publications.



## Cybersecurity

Our cybersecurity program helps us maintain the integrity and security of our network, protect our intellectual property, safeguard customer data and maintain operations at manufacturing sites.

Our program identifies and manages risks to our company's hardware, software and data assets throughout their life cycles. The program also includes documented cybersecurity policies, vulnerability management, threat intelligence and ongoing monitoring for unusual activities. We take a proactive approach to security incidents and report appropriately to stakeholders.

We leverage external experts and partners to improve our security by conducting regular reviews of our cybersecurity controls and programs. Each year, we conduct penetration testing and mandatory regulatory assessments and audits, along with assessments required by our customers. We also benchmark our program against industry frameworks, such as the National Institute of Standards and Technology's Cybersecurity Framework.

Our cybersecurity strategy is governed by the Audit Committee of our Board and is led by our Vice President, Digital Risk, who reports to the Executive Vice President, Chief Financial Officer. Senior management briefs the Audit Committee on cybersecurity threats and the risk landscape at least twice per year and reports to the full Board on an annual basis. We require all salaried employees to complete an annual cybersecurity training and provide voluntary ongoing training for all employees to defend against cyber risks.

We publish information on our cybersecurity risks in our [2023 Annual Report](#).







**GOVERNANCE**

# Business integrity


GRI 2-16, 2-23, 2-24, 2-25, 2-26, 3-3, 201-2

At Trane Technologies, we lead with business integrity and are proud to be recognized as one of the 2024 World's Most Ethical Companies® as listed by Ethisphere. We expect all team members to act ethically and hold our people to the highest standards of conduct.

Our [Code of Conduct](#), [Business Partner Code of Conduct](#) and Leadership Principles guide our actions and promote responsible business culture. Additionally, our [Global Human Rights Policy](#) and our [Environmental, Health and Safety \(EHS\) Policy](#) reflect our dedication to protecting human rights and workers' rights in our value chain. The values outlined in these policies serve as our global minimum business standards across our value chain. Everywhere we operate, we also comply with local laws and regulations. For more information about our ethics and risk management practices, read our [2023 Annual Report](#).

**“ Our annual training is one way we prepare and empower team members with the knowledge to do the right thing to protect themselves, their colleagues and the company.**

Evan Turtz, SVP and General Counsel

  
**100%**  
of salaried team members completed Code of Conduct training in 2023

## Risk management

Our Board of Directors oversees our general risk management strategy and ensures the appropriate mitigation strategies are implemented by management. We review the risk landscape regularly to ensure we address any potential changes.

Trane Technologies' Chief Financial Officer is the Chief Risk Officer (CRO). Our CRO periodically reports to the Board and its committees on risk management policies and practices and provides updates on specific risk mitigation action plans. These reports help the Board make appropriate decisions and shape risk management strategies.

Advancing from our previous Enterprise Risk Management model, our Enterprise Risk Intelligence program moves beyond risk identification to risk mitigation, leveraging technology, scenario planning and simulations to allow us to strategically manage risks and opportunities. The program evaluates risks based on potential impact, likelihood and vulnerability, and subsequently categorizes them into tiers to ensure effective risk prioritization. We address Tier 1 risks via scenario planning and mitigation actions and Tier 2 risks via mitigation actions. We use key risk indicators to track progress against mitigation objectives and enable risk sensing across Tier 1 to Tier 3 risks. In 2023, the Enterprise Risk Intelligence Committee held quarterly meetings to review the status of risk responses for both Tier 1 and Tier 2 risks, ensuring ongoing oversight. Deep-dive sessions on Tier 1 risks are a critical part of the committee's quarterly meetings.

### ESG RISK MANAGEMENT

The Board's Sustainability, Corporate Governance and Nominating Committee oversees corporate governance and sustainability risks on environmental, social and governance (ESG) issues. The committee monitors performance against ESG objectives, including the impacts of climate change, and recommends ESG risk mitigation actions to the full Board.



## Climate risk

GRI 3-3, 201-2

In 2022, Trane Technologies performed a quantitative and qualitative climate scenario analysis to identify and manage emerging and existing climate-related business risks and opportunities. Our climate scenario analysis for transition risks and opportunities included direct consolidated operations and excluded upstream and downstream suppliers, organizations, customers and other operations not within direct consolidated control of Trane Technologies. The physical climate risk assessment included 45 priority locations worldwide and their insured asset values. Read more about the outcomes of this assessment in our [CDP Climate Report](#).

Our Enterprise Risk Intelligence Committee uses the climate-related risks and opportunities identified in the scenario analysis to inform the risk management process. Throughout the year, our Enterprise Risk Intelligence Committee works closely with our Enterprise Leadership Team to evaluate, manage and plan climate risk management for the businesses' upstream, downstream and direct operations.

## Mitigation strategies

Through the publication of comprehensive policies, we seek to mitigate risks of corruption, bribery, harassment and human rights violations throughout our enterprise and value chain. We expect our team members and value chain partners to follow these guidelines, and we offer compliance training to our workforce.

## CODE OF CONDUCT

Trane Technologies' [Code of Conduct](#) defines the standards we expect all team members to uphold. Our comprehensive Code of Conduct covers topics like labor relations, human rights, diversity, equal employment opportunities, discrimination, harassment, anti-bribery and corruption, conflicts of interest, political activities and contributions and data privacy. It also details our company's leadership principles and describes how we expect our team to engage with stakeholders across our value chain. Our Code of Conduct applies to every team member regardless of their role or location, as well as the Board when acting in connection with their Trane Technologies-related duties. The essence of our Code is simple:

- We act lawfully and ethically.
- We speak up and report unethical conduct.
- We do what's right, always.

In 2023, we expanded our Code of Conduct training to our hourly employees. We require salaried team members to complete Code of Conduct training annually and hourly team members to complete Code of Conduct training biannually. Both salaried and hourly team members must attest that they will uphold our Code of Conduct. In 2023, 100% of salaried team members completed Code of Conduct training. Salaried team members also receive anti-corruption, conflicts of interest, fraud and financial crimes, Information Technology (IT) security awareness and workplace harassment prevention training. For more information on our anti-corruption and anti-harassment training efforts, visit our [ESG data center](#) section.

We also expect our business partners to operate with the highest legal, moral and ethical standards, as outlined in our [Business Partner Code of Conduct \(BPCoC\)](#). Learn more about the BPCoC in the [Human rights](#) section and our supplier assessment and due diligence review process in the [Supply chain transparency & performance](#) section.

## ANTI-CORRUPTION

GRI 205-2, SASB RT-EE-510a.1

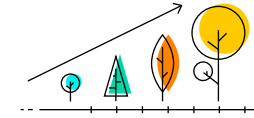
Our Code of Conduct and Anti-Bribery and Corruption Policy hold our team members accountable to ethical and legal compliance standards. The Policy prohibits team members from giving, offering or accepting anything of value in exchange for a business advantage. This includes a complete ban on facilitation payments to secure routine government functions. We expect our team members to only visit customers or other third parties for legitimate business purposes.

The Audit Committee of the Board reviews our compliance programs to assess how well the programs address all applicable anti-corruption laws. Trane Technologies' Global Business Integrity Council (GBIC) focuses on the implementation of risk-based compliance solutions to prevent, detect and remediate misconduct and promote an ethical culture. Chaired by our Board Chair and CEO and co-owned by the Vice President and Deputy General Counsel, Global Ethics and Compliance, the GBIC executes our company's global ethics and compliance program and works with regional-level councils to set, approve and operationalize compliance practices.

## Alignment of business integrity

### Ambition

- Operate with integrity and uphold Trane Technologies' leadership principles.



### Action

- Code of Conduct training.
- Business Partner Code of Conduct (BPCoC) training.
- Anti-harassment and anti-slavery training.
- Business partner environmental compliance assessment.
- Continued launch of workplace harassment and Code of Conduct trainings for hourly employees.

### Impact

- 100% of salaried team members completed Code of Conduct training.
- Zero suppliers identified as having actual or potential negative environmental impact.



## NON-DISCRIMINATION & ANTI-HARASSMENT

Trane Technologies is an Equal Employment Opportunity employer in the United States. We provide opportunities regardless of race, sex, color, national origin, creed, religion, pregnancy, age, disability, military/veteran status, sexual orientation, gender identity, genetic information, marital status or any legally protected status.

We adhere to this policy regarding employment, promotion, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and benefits. We also enforce it in selections for training, including apprenticeships and additional terms or conditions of employment.

We follow a strict anti-harassment policy and expect our team members to uphold our high standards. To help foster an inclusive workplace, we train 100% of our global salaried team members annually on anti-harassment. In 2023, we expanded our anti-harassment training to our hourly workforce.

## REPORTING

We provide multiple channels for team members to report ethical concerns or violations of our Code of Conduct, laws or regulations. Team members may contact the Ethics Helpline, which is managed by an independent third-party; send an email to [ethics@tranetechnologies.com](mailto:ethics@tranetechnologies.com), which is monitored by our Ethics and Compliance Group; or raise an issue with their manager, Human Resources, the Legal Department, the Ethics and Compliance Group or the Assurance and Advisory Services Group (AAS).

Our global Ethics Helpline is a mechanism through which 100% of our global employees and all external stakeholders, including our business partners, may report any known or suspected violation of the Code of Conduct, laws or regulations. Our publicly accessible [Code of Conduct](#) provides instructions on how to access and use the Ethics Helpline. Employees and stakeholders may access the Ethics Helpline through a secure [website](#) and country-specific, toll-free telephone numbers at any time. They can also follow up on questions posed or reports. We regularly test the telephone numbers to ensure they work properly. When making a report, stakeholders can remain anonymous unless restricted by local privacy laws.

The Ethics and Compliance Group reviews every report it receives. When appropriate, the Ethics and Compliance Group takes remedial actions to ensure compliance and safeguard our company's reputation for ethics. We prohibit retaliation against another employee or third-party for reporting a policy or Code violation in good faith or for cooperating with a company review. Remedial actions are formally assigned for completion and tracked by our Ethics and Compliance Group until closed.







## GOVERNANCE

# Environmental, health & safety management

GRI 2-23, 2-24

Trane Technologies is dedicated to operating in a way that safeguards our people and protects the environment through sound environmental, health and safety (EHS) practices. We commit to cultivating a zero-injury and zero-incident culture across our operations.

As part of our safety culture, we publish an enterprise-wide [EHS Policy](#). Our policy standards comply with the global, national, state and local EHS statutes at our operational sites, often exceeding regulatory requirements. Our EHS standards are aligned with the latest guidance from regulatory bodies, including the U.S. Occupational Safety and Health Administration and the International Organization for Standardization (ISO).

## Our EHS Policy

Our EHS Policy represents our commitment to environmental sustainability and safety. The policy outlines EHS practices for our team members and businesses and describes how we engage with stakeholders on EHS matters.

In accordance with our EHS Policy, we established enterprise-wide engineering, maintenance and EHS standards that are robust, scientifically sound and protective of the environment, our staff and our communities. Our policy requires management plans to be implemented and followed to proactively identify and minimize EHS risks associated with our business operations.

We set annual targets to measure, manage and communicate our EHS performance. The targets and actions follow our Business Operating System standard of work, which includes programs to proactively reduce our environmental footprint by preventing pollution, reducing waste, limiting energy consumption and conserving water. We work to decrease our use of non-renewable natural resources, increase the reuse and recycling of materials and reduce our greenhouse gas (GHG) emissions.

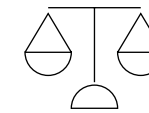
Our Business Operating System addresses the EHS Policy requirements for health and safety risk and incident response with EHS incident, crisis and hazard response plans. The response plans outline how we remediate EHS incidents and take appropriate corrective actions to prevent recurrence at the specific location and across the enterprise.

## MANAGEMENT

Our Chair and CEO and the Executive Vice President and Chief Integrated Supply Chain Officer serve as the executive sponsors of our company's EHS Policy. Our business unit EHS Leaders and our Enterprise EHS Team meet regularly to review our EHS management standards, set annual performance targets and review performance metrics. Key performance indicators include leading and lagging metrics, such as injury rates and GHG emissions reductions. Sponsors of our EHS Policy review performance and discuss our EHS strategy at quarterly town hall events.

Our EHS Council is our conduit for EHS improvements and updates at Trane Technologies. The Council continuously monitors emerging trends and regulatory changes by engaging with EHS regulators in our operational locations and regularly updates our policies to reflect new developments. Our Enterprise EHS group also analyzes internal performance data and conducts internal and third-party audits of our facilities. We submit select EHS data and management procedures to an independent third-party annually for limited assurance, and our EHS management system conforms to ISO 14001 and ISO 45001 standards.

### Our Leadership Principle

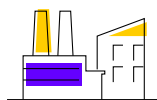


We do what's right, always.





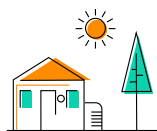
### Environment & climate change



Pollution prevention, environmental management and integrated permitting



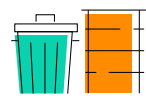
Water supply management, including a water quality management system



Air quality



Wastewater discharge management



Waste management



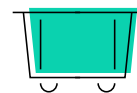
### Safety procedures



General safety and health management



Personal protective equipment



Hazardous substance management and dangerous substances



Physical and mechanical hazards



Fire protection

### TRAINING

We expect our team members to integrate sound EHS practices into their everyday activities. Upon joining Trane Technologies, new employees and contract employees receive EHS training specific to their work location or project assignments. Each year, we require all team members working in operational roles to participate in annual EHS training to ensure they understand our policy and practices. Our EHS training programs cover environmental stewardship practices, such as energy reduction strategies and the reuse and recycling of materials, along with jobsite safety procedures supporting our zero-injury and zero-incident culture.

### Audits & due diligence

Our facilities conduct annual EHS self-assessments according to a standard, company-wide protocol. Through the EHS self-assessment, each facility scores its status against the protocol. In addition to the facility self-assessments, Trane Technologies also conducts internal audits. In 2023, we provided a 3-day, hands-on training to the Trane Technologies' experts performing our internal audits. The training covered the basics of EHS auditing and Trane Technologies' audit tools and included a practice physical audit. We use the findings from the self-assessments and internal audits to identify opportunities to strengthen our EHS performance and adjust our management practices accordingly.

In 2023, third-party consultants or Trane Technologies' experts audited the EHS practices at 33 sites, including factories, distribution centers, parts stores and field service work locations. Audit intervals depend on the site's complexity and size. The audit frequency also depends on the nature of manufacturing operations on-site, as well as the regulatory EHS requirements from local, state or federal authorities.

When evaluating acquisitions, we employ a comprehensive EHS integration model and complete formal due diligence that includes EHS inspections. Our EHS integration model includes orientation training, compliance-based auditing, risk assessments, implementation of our EHS management system and data reporting procedures.

We did not receive any significant fines in 2023 for environmental noncompliance and prescribe to the underlying elements of Precautionary Approach Principle 15 of the 1992 United Nations Conference on Environment and Development (Rio Declaration). We work to reduce or eliminate the use of hazardous substances in our business operations where possible, such as through our efforts to redesign manufacturing processes and product offerings as we shift to low-global warming potential refrigerants. We continue to evolve our business operations to align with the Precautionary Principle.





## GOVERNANCE

# Public policy

GRI 2-29

We support public policies that enable and encourage adoption of innovative, sustainable solutions, including decarbonizing alternatives, such as the electrification of heat, energy efficiency, thermal energy storage, accelerated adoption of low-global warming potential (GWP) refrigerants and renewable energy.

We support scientifically sound policy and transparent public reporting of greenhouse gas (GHG) emissions, targets verified by the Science Based Targets initiative (SBTi) and progress backed by standardized reporting frameworks that are reviewed by third parties.

## Credible disclosure & engagement

In 2023, [InfluenceMap](#) recognized Trane Technologies as a Corporate Climate Policy Engagement Leader for science-aligned climate policy influence. Trane Technologies was recognized as being in the top 5% of companies evaluated for positive and active climate policy engagements aligned with the Paris Climate Accords of 2015 (Paris Agreement).

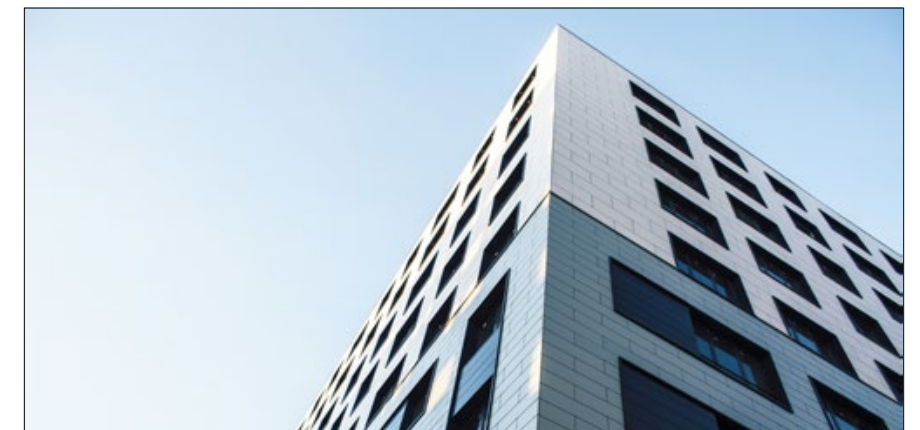
Trane Technologies was recognized as the leading climate policy “Transformer” in Carbon Trust’s report, [Cooling Suppliers: A Stocktake on the Path to Net Zero](#), for having “ambitious transformation plans to support their clients in decarbonization whilst encouraging broader industry climate action.”

Trane Technologies [was one of only four of the 100 largest global companies](#) recognized with an “A” rating by “[As You Sow](#)” for progress in reducing GHG emissions to align with the Paris Agreement to limit global temperature rise to 1.5 degrees Celsius.

Trane Technologies is a signatory of the COP27 [Action Declaration on Climate Policy Engagement](#), which commits us to policy engagement activities that support the Paris Agreement.

## Public policy management

Our Government Relations Steering Committee, led by our Chair and CEO, meets quarterly to discuss policies, emerging issues and company positions. Based on these reviews, relevant policies are prioritized, assessed and aligned with the positions of allied organizations, from NGOs to industry trade groups. We manage our policy positions depending on our science-based assessment of their impact on sustainability.



## Enabling new refrigerants in all U.S. states (lobbying efforts)

In 2023, we supported public policy in U.S. states to phase out hydrofluorocarbon (HFC) refrigerants and enable low-GWP refrigerants through the regulatory and legislative processes. Several U.S. states acted on refrigerant policy this year, including New Jersey and Wisconsin, among others. With a sustained push by Trane Technologies and our trade association partners, we are proud to enable the installation of cleaner next-generation products in nearly every U.S. state. We are working to ensure that all 50 states are ready for the low-GWP refrigerant transition.





## ACCELERATING CLIMATE ACTION

Trane Technologies actively participates in key meetings and forums with government leaders and policymakers in Washington, D.C., and in state capitals throughout the United States. For example, in 2023, the White House invited our Chair and CEO to offer insights on climate action and decarbonization policy, among other topics. Our Chair and CEO also shared our climate action and decarbonization insights with U.S. congressional leaders on Capitol Hill. Additionally, other senior leaders offered critical input to a wide variety of policymaking officials in 2023 on topics such as decarbonization, the electrification of heating, building codes, supply chain management, tax and trade and litigation reform.

We also attend national and global events and forums to contribute to dialogue that helps accelerate climate action and policy adoption.

At Climate Week in New York, Trane Technologies convened customers and environmental partners to discuss collective action toward a net-zero future. We also joined forums hosted by partner organizations:

- Our Chair and CEO spoke on the main stage of the Concordia Annual Summit on the importance of transparency and credibility for climate action.
- In partnership with the Sustainable Markets Initiative, leaders from member companies toured 55 Water Street, a longtime Trane® customer, which showcased how high-efficiency heating and cooling systems are helping decarbonize one of the largest buildings in New York City.
- Trane Technologies attended the United Nations Climate Ambition Summit to contribute to the mission of accelerating action by governments, businesses, finance, local authorities and civil society. Our invitation to the summit demonstrated our credibility as a climate advocate through our [tangible actions and transparent disclosures](#).

Read more about our presence at [Climate Week](#).

In the lead-up to the 28th Conference of Parties (COP28), our Chair and CEO became a signatory of the Alliance of CEO Climate Leaders' open call for action. This open letter, signed by over 100 globally recognized CEOs and directed at world leaders, expresses the importance of taking immediate climate action to limit warming to 1.5 degrees Celsius. Read the letter [here](#).

During COP28 and the Sustainable Innovation Forum 2023, Trane Technologies joined several climate action dialogues focused on the critical environmental and social factors and scalable solutions needed to successfully enable the transition to net-zero. Trane Technologies' leaders encouraged the industry to develop robust policies, accelerate the implementation of sustainable and energy-efficient technologies and create innovative solutions to global climate challenges.

Read more [insights](#) from leaders who attended.



## REFRIGERANT TRANSITION

Globally, Trane Technologies has been a leader in the industry transition away from the consumption and use of high-GWP hydrofluorocarbons (HFCs). We consistently support policies that enable the adoption of new refrigerants and set compliance schedules for an orderly transition in local, national and international forums.

Our team members help drive the low-GWP transition by chairing and participating in technical standards committees, including committees for equipment design, installation and refrigerant classification standards. We train technicians and other stakeholders to enable the successful adoption of new refrigerant technologies worldwide, and provide technology readiness insights and information to policymakers to support the advancement of policy that accelerates clean technology.

## ENERGY EFFICIENCY

We encourage the adoption of codes, standards and other minimum energy performance standards (MEPS) from the U.S. Department of Energy (DOE). We volunteer our technical and sustainability expertise with code and standard development organizations to update model building energy codes and advocate for the adoption of the latest, most efficient energy codes at the local level. We are also heavily engaged in MEPS development across the globe, advocating for increased system-level performance for HVAC products. This may be through participation in public comment proceedings for national rulemakings, including rulemakings with the DOE or U.S. state appliance standards and national MEPS in the European Union, China and South America.

## SYSTEM-LEVEL ENERGY EFFICIENCY

Trane Technologies also supports policies that promote system-level energy efficiency, such as real-time energy consumption data to reduce system-level energy waste. This intelligent efficiency creates greater savings than device-only efficiency improvements by using information and communication technologies (ICT) to improve system-level operational efficiency and productivity.

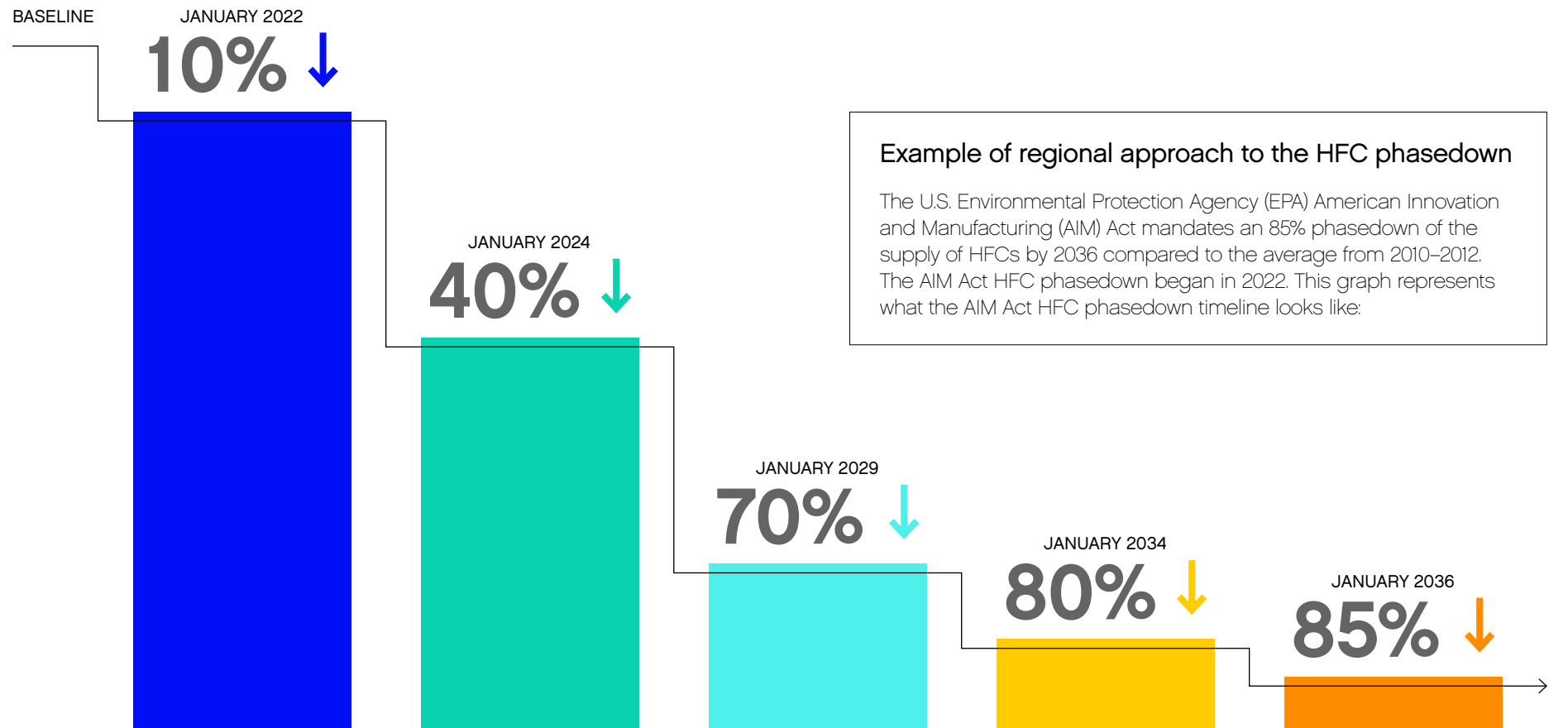
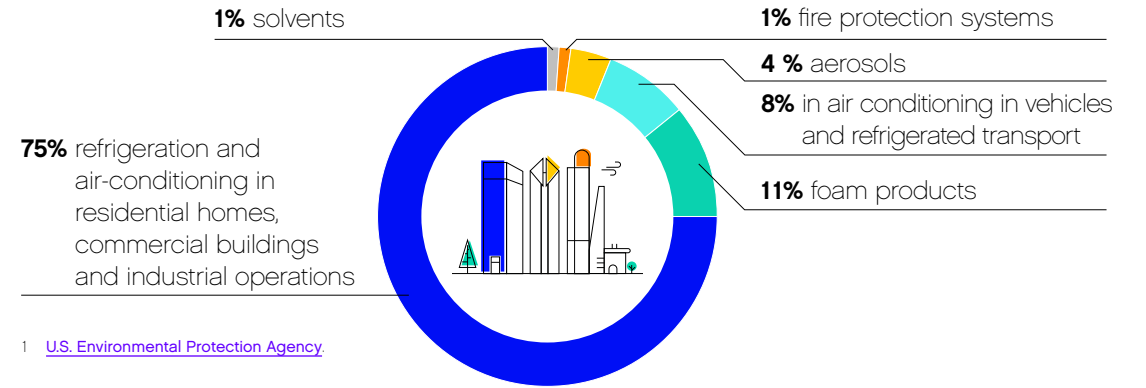
[ACEEE research](#) has shown that if homeowners and businesses take advantage of available ICT, they could reduce energy use in the United States by about 12% to 22%. In the commercial and manufacturing sectors, the annual energy cost savings from the use of ICT could exceed \$50 billion.

## The global HFC phasedown

The world is phasing down the supply of Hydrofluorocarbons (HFCs), a highly potent greenhouse gas (GHG). The Kigali Amendment to the Montreal Protocol, a global treaty, allows countries to develop a unique policy strategy to phase down HFCs under the countries' agreed upon schedule.

HFCs are used primarily as refrigerants in air-conditioning and refrigeration equipment in homes, commercial buildings and industrial operations. Trane Technologies began phasedown as early as 2014 and continues to lead the refrigerant transition in products ahead of regulations. We frequently share our product innovation with policymakers to inform what is practically scalable for operational and customer use.

## HFC sources in the U.S. (all amounts are approximates as of 2019)<sup>1</sup>





## RENEWABLE ENERGY

The electric grid can use intelligent energy demand management and energy storage to load-shift electricity demand to periods when more renewable energy is available, which can reduce emissions from fossil fuel-based sources. We engage with the Business Council for Sustainable Energy (BCSE) and the Center for Climate and Energy Solutions (C2ES) to support renewable energy and energy-efficient load shifting.

We also support building electrification policies and energy codes at the federal and state levels, including efficient heat pump adoption policies and incentives. We urged the White House Council on Environmental Quality and the General Services Administration to adopt more stringent energy codes for federal buildings, creating additional demand for the electrification of heating and energy management systems and maximizing emissions reductions.

## FORMAL COMMENTS & TESTIMONY

Trane Technologies develops and proposes climate and sustainability policies. We frequently intervene or provide formal comments during policy development to support climate action or counter unproductive messaging from trade associations and other companies. The public comments and testimonies we made in 2023 are available on our [website](#) under Sustainability Advocacy.

## Political activity

We strictly adhere to all laws and regulations governing corporate political activities. The laws of many countries prohibit or strictly limit contributions by corporations to political parties and candidates. Although our team members may engage personally, Trane Technologies prohibits them from doing so on behalf of our company.

In the United States, Trane Technologies has an employee non-partisan political action committee (PAC), which complies with all applicable laws and is regulated by the Federal Election Commission (FEC). Under FEC law, we publicly disclose all funds received by the PAC and resulting contributions to federal candidates in the FEC Campaign Finance database. The Trane Technologies employee PAC is 100% voluntary, and we do not permit our team members to receive reimbursement from Trane Technologies for personal contributions to political parties and candidates. U.S. lobbying expenditures totaled \$988,445 in 2023. More information on our lobbying expenditures can be found in the [ESG data center](#) section.

## 527 ORGANIZATIONS & SUPER PACS

Trane Technologies does not contribute to 527 organizations, which are political organizations created under Section 527 of the U.S. Internal Revenue Code, other than PACs and candidates. We also do not contribute to federal independent expenditure-only committees, also known as "super PACs."



## Policy associations

In 2023, we belonged to the following representative trade, industry and policy associations:

- Advanced Energy Economy (AEE)
- Air Conditioning, Heating and Refrigeration Institute (AHRI)
- American Council for Energy Efficient Economy (ACEEE)
- Business Council for Sustainable Energy (BCSE)
- California Energy Storage Alliance (CESA)
- Center for Climate and Energy Solutions (C2ES)
- Ceres
- Charlotte Regional Business Alliance
- Clean Energy Buyers Association (CEBA)
- Digital Climate Alliance (DCA)
- Energy Storage Association (ESA)
- European Heat Pump Association
- International WELL Building Institute (IWBI)
- Manufacturers Alliance for Productivity and Innovation (MAPI)
- Midwest Energy Efficiency Alliance (MEEA)
- National Association of Energy Service Companies (NAESCO)
- National Association of Manufacturers (NAM)
- National Association of State Energy Officials (NASEO), Executive-level affiliate member
- North Carolina Chamber of Commerce
- 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 (SWEPP)
- The Alliance for Responsible Atmospheric Policy (ARAP)
- The Energy and Resources Institute (TERI) — India
- U.S. Business Council for Sustainable Development (US BCSD)
- U.S. Green Building Council (USGBC)
- World Business Council for Sustainable Development (WBCSD)
- World Wildlife Fund Climate Business Coalition (WWF)



# Charters & partnerships

Trane Technologies collaborates with like-minded organizations to accelerate progress toward a sustainable future. Our public commitments and involvement in coalitions hold us accountable as we make progress on our ambitious climate and Diversity & Inclusion goals.



### [Climate Group's RE100, EP100 & EV100](#)

Trane Technologies is a member of the Climate Group's RE100, with a goal to source 100% renewable electricity by 2040; EP100, with a goal to double our energy productivity by 2035 from a 2013 baseline; and EV100, with a goal to transition our vehicle fleets to electric vehicles by 2030.



### [First Movers Coalition](#)

Trane Technologies is an inaugural member of the First Movers Coalition (FMC) launched in 2021 at the Conference of the Parties 26 (COP26) in Glasgow, Scotland. FMC members agree to set an ambitious purchasing target for a hard-to-abate material.



### [SteelZero](#)

Trane Technologies is a member of SteelZero, a global initiative working to accelerate the transition to a net-zero steel industry. As a SteelZero member, we commit to procuring 100% net-zero steel by 2050 to help shift the global steel market toward responsible sourcing and procurement of steel. In 2023, low-carbon steel accounted for over 20% of Trane Technologies' annual steel purchases.



### [Paradigm for Parity](#)

Trane Technologies is a member of the Paradigm for Parity, a coalition of business leaders, board members and academics who are committed to addressing the gender gap in corporate leadership.



### [Race To Zero](#)

In 2021, Trane Technologies joined this global campaign from the United Nations Framework Convention on Climate Change to rally leadership and support from businesses, cities, regions and investors for a healthy, resilient, zero-carbon recovery that prevents future threats, creates decent jobs and unlocks inclusive, sustainable growth.



### [World Economic Forum Alliance of CEO Climate Leaders](#)

Our Chair and CEO is a member of the Alliance of CEO Climate Leaders, an influential network of business leaders committed to raising bold climate ambition and accelerating the net-zero transition by setting science-based targets, disclosing emissions and catalyzing decarbonization and partnerships across global value chains.



### [Disability:IN](#)

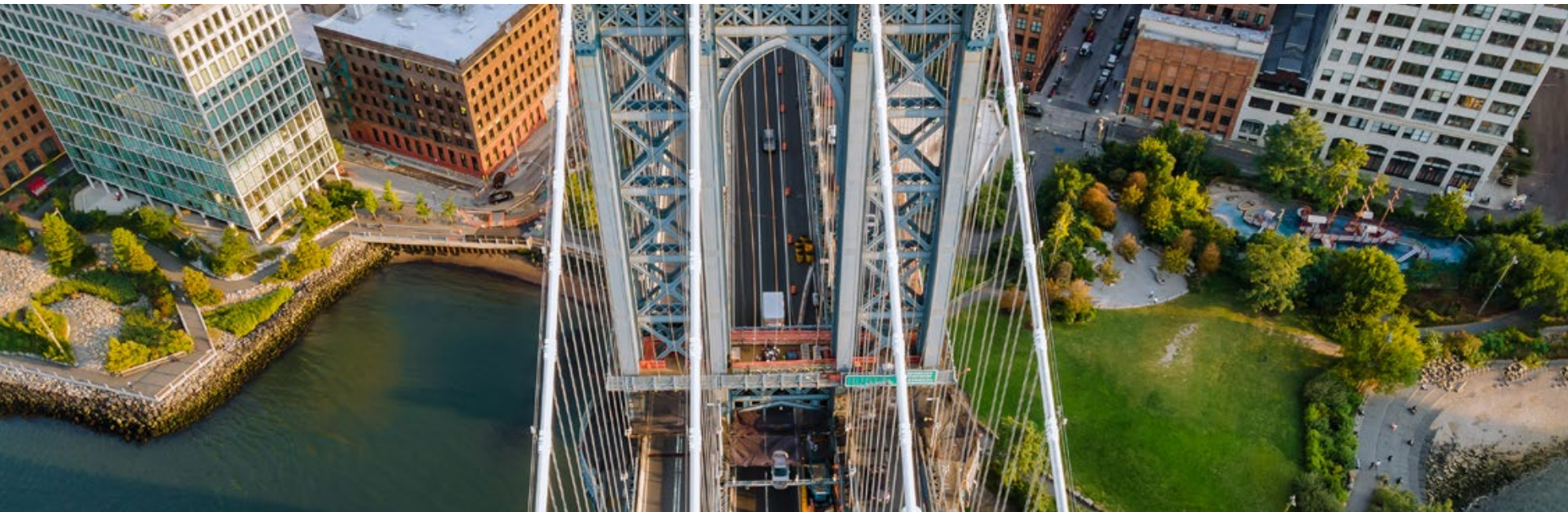
Our Chair and CEO signed the Disability:IN CEO Letter in 2021, extending Trane Technologies' commitment to advance equality and inclusion for all. Disability:IN envisions a global economy in which people with disabilities participate meaningfully and fully.



### [Sustainable Markets Initiative](#)

Our Chair and CEO is a member of the Sustainable Markets Initiative (SMI) and serves on SMI's [Sustainable Buildings Task Force](#). The SMI mission is to build a coordinated global effort through key initiatives that enables the private sector to accelerate transition to a sustainable future. For example, as a member of SMI we commit to using Sustainable Aviation Fuel (SAF) when available for our air travel, although we are currently limited due to accessibility. [Terra Carta](#) is SMI's guiding mandate and proposed a set of principles for 2030 that place Nature, People and Planet at the heart of the private sector's global value creation.





## ADDITIONAL PARTNERSHIPS

- **Business Ambition for 1.5°C** is an initiative of the United Nations Global Compact, CDP, World Resources Institute and other non-governmental organizations whereby companies commit to set a long-term, science-based target to reach net-zero value chain greenhouse gas (GHG) emissions no later than 2050.
- **CEO Action for Diversity & Inclusion** is the largest CEO-driven business commitment to advance Diversity & Inclusion in the workplace, representing more than 2,500 CEOs.
- **Clean Energy Ministerial (CEM) Advanced Cooling (AC) Challenge** urges governments, companies and other stakeholders to make, sell or install super-efficient air conditioners 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.
- **The Climate and Clean Air Coalition HFC Initiative** is a United Nations Environment Programme initiative that supports 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.
- **Cool Coalition** is 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 toward a rapid global transition to efficient and climate-friendly cooling.
- **H2ForNetZero** is a global initiative by World Business Council for Sustainable Development (WBCSD) and Sustainable Markets Initiative (SMI) focused on companies pledging to consume, supply or support hydrogen with the lowest possible carbon intensity.
- **Mission Efficiency** is 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.
- **OneTen**, established in 2020, is a coalition of leading companies committed to closing the opportunity gap for Black talent and others who do not have a four-year degree. Trane Technologies is a founding member.
- **Opportunity@Work** is working to rewire the U.S. labor market to create opportunity for workers who are Skilled Through Alternative Routes (STARs). As a coalition partner, we actively work to create more opportunities for workers who are STARs and expand pathways for qualified talent.
- **Sustainable Energy for All (SEforALL)** is an international organization working with governments, the private sector and civil society to drive further, faster action toward the achievement of Sustainable Development Goal 7, which calls for universal access to sustainable energy by 2030, and the Paris Agreement, which calls for reducing GHG emissions to limit climate warming to below 2°C above pre-industrial levels.
- **Task Force on Climate-related Financial Disclosures (TCFD)** supports a transition to a low-carbon economy, more efficient allocation of capital and an improved dialogue between investors and companies.
- **The United Nations Global Compact (UNGC)** is a global voluntary initiative in which companies and organizations commit to implement universal sustainability principles and support United Nations goals.
- **U.S. Department of Energy Better Buildings Initiative** partners share their GHG, energy, water and waste reduction solutions and best practices to help other organizations replicate their success. In 2023, program partners represented 14% of the U.S. manufacturing energy footprint.
- **WEConnect International** certifies and connects women-owned businesses to global, corporate buyers.
- **America Is All In** is an organization of more than 3,900 businesses, mayors, county executives, universities, faith groups and investors that have committed to supporting the Paris Agreement and working to meet its goals.
- **We Mean Business Adopt a Science-Based Emissions Reduction Target** leads businesses to recognize the opportunity — and the imperative — to be part of the zero carbon transition by encouraging companies to create carbon reduction plans in line with the Paris Agreement. To engage in this initiative, companies set bold, science-based emission reduction targets and publicly announce the targets after approval by the Science Based Targets initiative (SBTi).
- **We Mean Business Commitment to Reduce Short-Lived Pollutant Emissions** is a coalition of companies that agree to include measurement of HFCs in their GHG accounting and reduce emissions of short-lived climate pollutants (SLCPs). Participants also engage stakeholders in their supply chain to reduce SLCP emissions, promote best practices and showcase successful efforts.
- **World Economic Forum (WEF) Stakeholder Capitalism Metrics** is a reporting framework from the WEF initiative seeking to improve how companies measure and demonstrate their contribution to a more prosperous, fulfilled society and a more sustainable relationship with our planet.

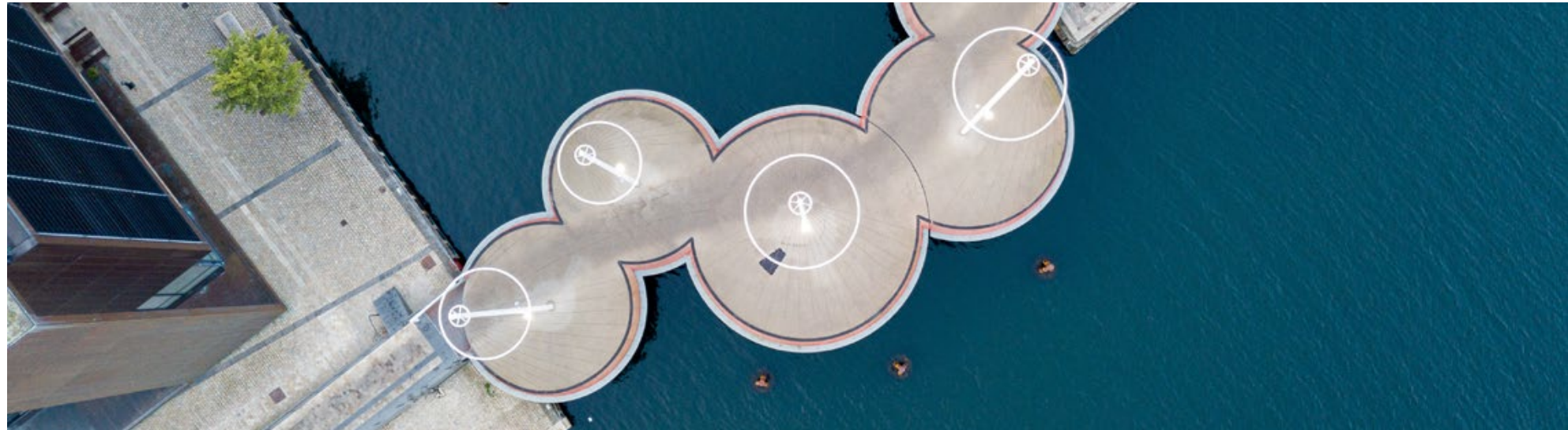


# Memberships

GRI 2-28

Our representative memberships help keep us close to important conversations and opportunities in our industry and beyond:

- AHC Group
- American Belt and Road Working Group under the U.S. Embassy
- American Center for Life Cycle Assessment (ACLCA)
- American Chamber of Commerce in India (AmCham India)
- American Chamber of Commerce in Shanghai (AmCham Shanghai)
- American Council for an Energy Efficient Economy (ACEEE)
- Association of Climate Change Officers (ACCO)
- Association of Energy Engineers (AEE)
- Association of Physical Plant Administrators (APPA)
- BuildingGreen
- Building Decarbonization Coalition (BDC)
- Business Council for Sustainable Energy (BCSE)
- Center for Climate and Energy Solutions (C2ES)
- China Federation of Logistics and Purchasing (CFLP)
- China Refrigeration and Air Conditioning Industry Association (CRAA)
- Clean Energy Buyers Association (CEBA)
- Climate Generation: A Will Steger Legacy
- Corporate Eco Forum (CEF)
- Digital Climate Alliance (DCA)
- Energy & Environmental Building Alliance (EEBA)



- Energy Efficiency Business Coalition (EEBC)
- First Movers Coalition
- Global Environmental Management Initiative (GEMI)
- GreenBiz Executive Network (GBEN)
- Institute for Market Transformation (IMT)
- International Code Council (ICC)
- International WELL Building Institute™ (IWBI)
- Manufacturers Alliance for Productivity and Innovation (MAPI)
- National Association of Environmental Management (NAEM)
- National Association of Manufacturers (NAM)
- National Association of State Energy Officials (NASEO)
- New Buildings Institute (NBI) Residential Energy Services Network (RESNET)
- Rocky Mountain Institute (RMI)
- Shanghai Energy Conservation Center
- Shanghai Green Building Association (GBCI)
- Shanghai Refrigeration Institute
- Sustainable Energy for All (SEforALL)
- Sustainable Markets Initiative (SMI)
- The Air Conditioning, Heating and Refrigeration Institute (AHRI)
- The Aspen Institute's Aspen Leaders Forum
- The Conference Board
- Urban Green
- 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
- World Business Council for Sustainable Development (WBCSD)
- World Economic Forum (WEF)
- World Environment Center (WEC)
- World Wildlife Fund: Climate Business Network



# Products & innovation

We create innovative solutions to solve our industry's biggest sustainability challenges. We push the limits of what is possible by innovating more efficient ways to provide heating and cooling to people around the world, scaling our technology and forming strategic partnerships.

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[Technology & innovation](#) →

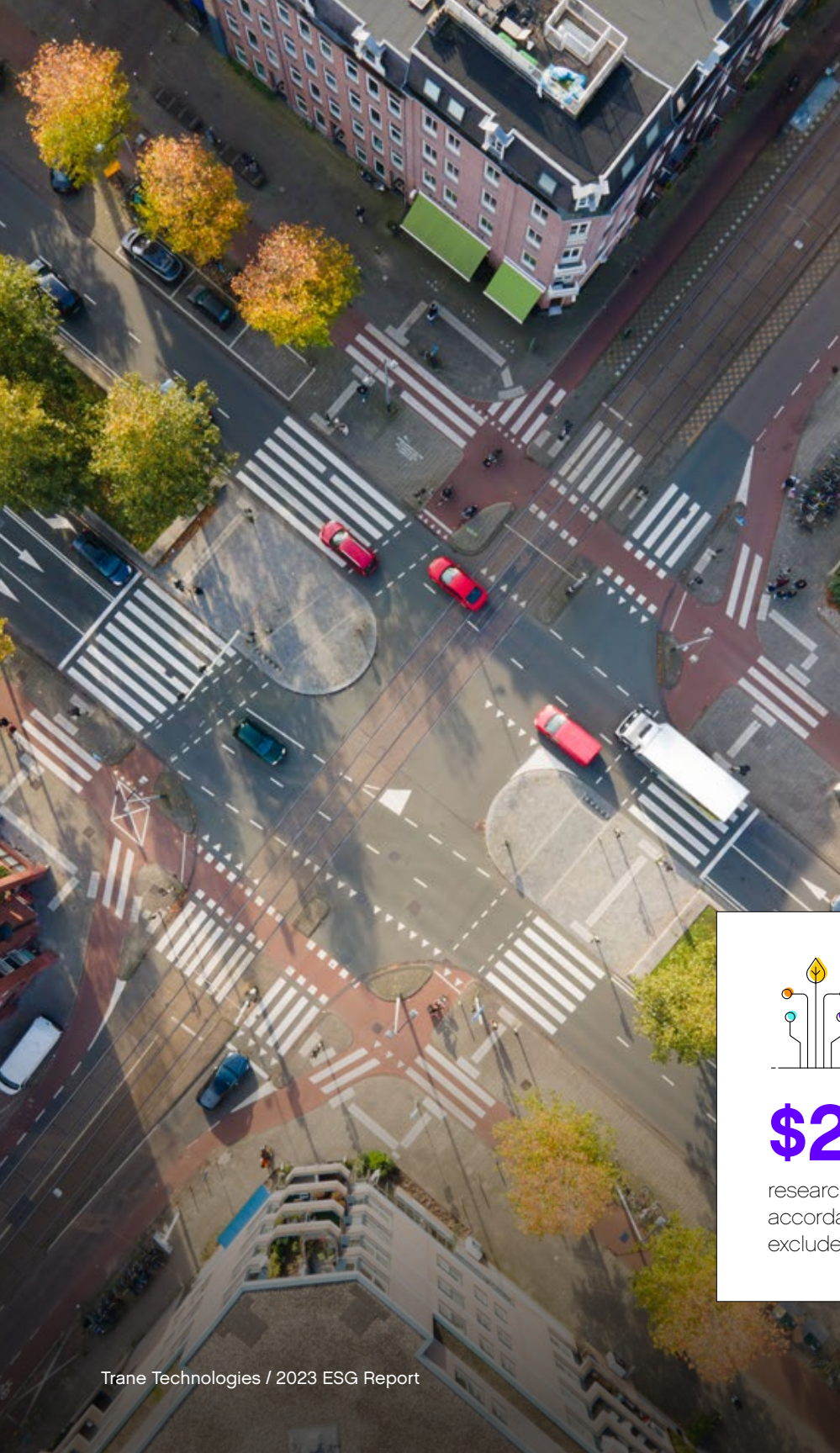
[Circularity: Product life cycle & materials](#) →

[Energy-efficient & low-emission solutions](#) →

[Customer-focused solutions](#) →

[Supply chain transparency & performance](#) →





PRODUCTS & INNOVATION

# Technology & innovation



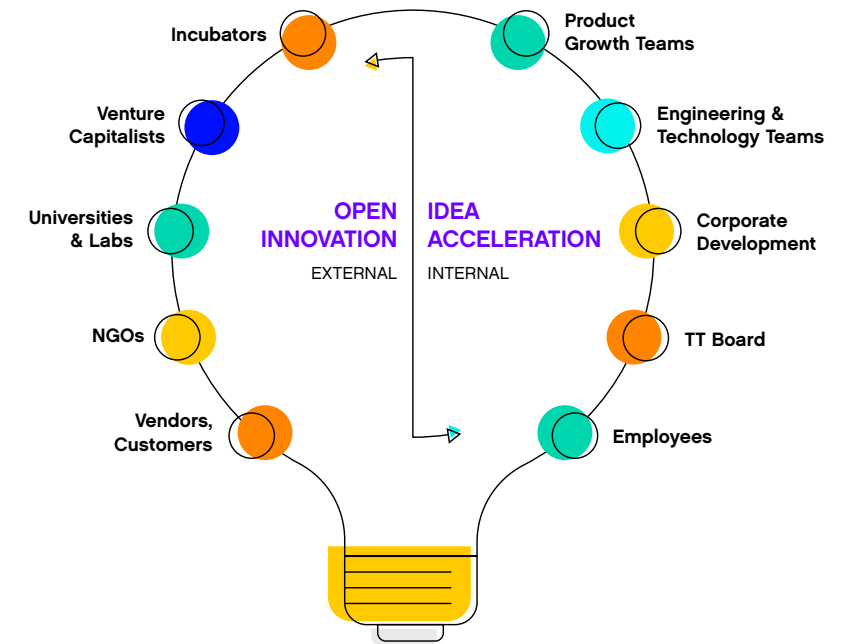
[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

GRI 3-3

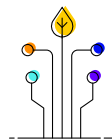
We provide industry-leading products and services that enable customers to improve their operations, enhance efficiency and adapt to a rapidly changing climate. With a focus on broader environmental, social and economic challenges, we are continually investing in innovation and applying our expertise to develop new solutions. Through advancements in technology-enabled products and services, our goal is to enable sustainability in key areas that will have an immediate and long-term impact.

Our commitment to customers and sustainability guides our approach to innovation. We actively engage with our customers to understand their needs and develop solutions that advance their goals. Additionally, we work across a network of partners, such as accelerators, universities, national labs and suppliers, to enhance our product development process and deliver new and improved offerings.

## Our innovation ecosystem



SOURCE IDEAS ► PRIORITIZE ► MATURE IDEAS ► CREATE OUTCOMES



# \$252M

research and development expenses incurred in 2023 (as reported in accordance with U.S. generally accepted accounting principles (GAAP), excludes capitalized research and development costs)



# 125+

new patent filings



Our Business Operating System guides our innovation and product development process. A dedicated cross-functional and cross-business unit steering committee, including our Chief Technology and Sustainability Officer, oversees many of our new innovation projects. Teams across our organization participate in this process, including our Advanced Technology teams and Product Growth teams. Through resources like our Engineering and Technology Centers, the innovation teams can test and pilot new technologies. And, our intellectual property committee manages our portfolio of patents and trademarks across the enterprise.

With a strong focus on continuous improvement, we foster a culture of innovation, facilitating an environment where ideas can be explored, tested and scaled to make a meaningful impact.

**EXTERNAL PARTNERSHIPS**

We partner with industry experts, research institutions and other innovators to accelerate sustainable solutions for global challenges.

For example, in 2023, we became a founding industry partner of the Australian Research Centre’s Training Centre for Advanced Building Systems against Airborne Infection Transmission, which aims to design and engineer building systems that reduce airborne infection transmission while maintaining comfort and efficiency. The center is led by Distinguished Professor Lidia Morawska of the Queensland University of Technology, who also serves as an advisory council member at our [Center for Healthy & Efficient Spaces](#).

We also collaborate with several universities and national labs to advance the technical understanding and commercial viability of cutting-edge climate solutions, including three projects which were awarded grants from the U.S. Department of Energy. Read more about these programs in [Greenhouse gas emissions](#).

Finally, we engage with other climate tech companies to co-develop and pilot new technologies. New innovations launched in 2023 include the Thermo King® Axlepower, co-developed with BPW, and the Trane® Autonomous Controls powered by BrainBox AI®. Read more about these innovations and others in the [New products and services](#) section.

**Investing in sustainable solutions**

In 2023, Trane Technologies invested approximately \$252 million in sustainability-driven research and development centered on:

- Product and system-level improvements such as increasing energy efficiency;
- Advancing the electrification of heating and transport;
- Developing and implementing low-global warming potential (GWP) refrigerants;
- Reducing material content in products;
- Designing products for circularity; and
- Leveraging artificial intelligence (AI) solutions to increase energy efficiency.

**INNOVATION REVENUE**

GRI Custom

Our internal teams develop innovative new products that generate revenue at the rate of 27% of our overall revenue. We define this Innovation Revenue metric as the revenue occurring in the current reporting year, derived from new solutions or new markets launched within the prior 36 months.

**Our Leadership Principle**

 We keep customers at the heart of all we do.





## STRATEGIC ACQUISITIONS

In partnership with business and enterprise leaders, the corporate development team advances our business strategy by leading acquisitions, joint ventures and growth equity investments. With a heightened focus on growth, we find innovative ways to gain exposure in new markets, increase access to clean technology and meet evolving customer demands.

Last year, we invested over \$900 million in business development activities, including mergers and acquisitions, minority investments and strategic partnerships across multiple sectors like life sciences, digital services and industrial cooling. Examples of this include our acquisitions of Helmer Scientific, MTA and Nuvolo.



### Helmer Scientific

To expand our growing life sciences business, Trane Technologies acquired [Helmer Scientific](#), a leader in precision, medical-grade, temperature-controlled storage. Through this acquisition, we bring our climate innovation and temperature-control solutions to the fast-growing life sciences and clinical health markets.



### MTA

Trane Technologies acquired [MTA](#), a manufacturer and distributor of sustainable solutions in industrial refrigeration, air conditioning and air treatment of compressed gases. MTA strengthens our ability to decarbonize operations with sustainable high-performance solutions for the pharmaceutical, food and beverage, and automotive industries.



### Nuvolo

We acquired [Nuvolo](#), a leading cloud-based software and solutions provider for intelligent workplace solutions and enterprise asset management.

## OPERATION POSSIBLE

In 2023, we launched a new challenge through our employee-driven innovation program, Operation Possible, focused on providing affordable access to life-sustaining heating and cooling to vulnerable and displaced people. Over 4,000 employees from 48 countries registered on the platform and generated approximately 1,620 ideas. A global cross-functional committee evaluated and consolidated ideas, and employees voted for their favorites, helping to decide which ideas would be selected for incubation. This Operation Possible challenge aligned with United Nations (U.N.) SDG goals 1, 3 and 11.

Also in 2023, several employee teams continued to implement and scale solutions tied to previous Operation Possible challenges, such as [removing plastic packaging from our products](#) and developing and launching an [equipment buyback and integrated recycling customer offering](#).

## EXPLAINING TECHNOLOGY TO SCALE IMPACT

Increasing knowledge and understanding of sustainability terms, topics and technology can help accelerate the adoption of new technologies and increase impact through scale. In 2023, we continued with our third season of the [Healthy Spaces podcast](#), expanding our focus and conversations with experts from within our organization and beyond to help increase understanding of the intersectionality of human and planetary health and role of technology to improve outcomes.

We also worked with the team at Tomorrow's World Today to develop a broadcast television episode focused on how we help the world heat and cool spaces with innovative technology like heat recovery systems, thermal energy storage and advanced building management systems. The episode, titled [Cooling our World](#), featured our team of experts and the technology we bring to customers every day, and aired to millions of viewers on the Science Channel and Discovery Channel.



EMBEDDING SUSTAINABILITY

## Finding a better way

Over the past year, our global team members engaged in the Operation Possible challenge to generate ideas with the potential to increase access to healthy environments. For Joe, a pricing manager in [product management](#), Operation Possible was a call to action. His idea, [a thermal heat exchanger concept for refugee housing](#), made it to the final stages of crowd solving and moved into research and development. Joe's successful idea and passion for problem solving is just one example of how our employees combine their expertise and commitment for sustainability in their daily work and beyond.





# Circularity: Product life cycle & materials


12 

[U.N. SUSTAINABLE DEVELOPMENT GOALS](#) →

GRI 3-3, SASB RT-EE-440a.1; RT-IG-440a.1, RT-IG-440b.1

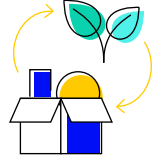
Trane Technologies works to decarbonize product life cycles from design to manufacturing through end-of-life. Circular strategies such as using recycled materials, repair and reuse, remanufacturing and recycling all play a meaningful role in our decarbonization efforts and [2030 Sustainability Commitments](#).

We recognize the importance of creating circularity strategies that reduce our reliance on virgin materials, keep products in service longer and reduce waste. Eliminating linear waste streams prevents downstream landfilling, which poses a hazard to water quality and air pollution, leading to human health and biodiversity impacts. Circular design can also reduce the carbon footprint of our products. We aim to extend product life cycles and build long-term strategic relationships with customers to create a more circular product system.



**23%**

of Trane Technologies' annual steel purchases were low-carbon steel in 2023



**45%**

of key commodities (e.g. steel, aluminum and copper) used to make our products in 2023 contained recycled content

## Circular materials



### Recycle

Transform a product or component into its basic materials or substances and reprocess into new materials.



### Material Selection

Procure materials with low environmental impact through incentivizing a circular supply chain.

## Circular design



### Sustainable & Circular Design

Create products that are easily disassembled for repairs, refurbishment and recycling.

## Circular services



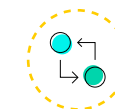
### Remanufacture/Repair

Return product or components to good working order through upgrade, repair, refurbishment or replacement.



### Maintain/Prolong/Share

Keep products and materials in use by extending their lifespan for as long as possible and ease updates.



### Reuse/Redistribute

Utilize a product or component on repeat, for its intended purpose without significant modification.



Our Circularity Council oversees our circular design approach and product-related roadmap, identifies priority focus areas, and sets relevant goals and targets. The Council, which has been active for two years, is comprised of business unit and enterprise team leaders. Our Circularity Council also consults and collaborates with external experts on circularity strategies, standards, best practices, innovation and education.

Six pillars guide the identification and selection of project priorities. Under each pillar, the respective groups work to refine success metrics and establish goals that support our 2030 Sustainability Commitments to design systems for circularity. In 2023, we piloted new methods and increased capabilities to deliver product life cycle assessments (LCAs) and Environmental Product Declarations (EPDs). We also launched an improved Design for Sustainability and Circularity module in our product development process. Finally, we strengthened our strategic partnerships, which include The REMADE Institute and the Remanufacturing Industries Council (RIC).

## MEASURING PROGRESS

GRI 301-2

We currently measure our progress based on the percentage of recycled materials sourced per year and remanufacturing revenues. In 2023, approximately 45% of materials in key commodities (copper, steel, cast iron, aluminum, plastics) used to manufacture products contained recycled content. Discover more of our product metrics in the [ESG data center](#) section.



## Product development process

Our product development process involves teams of engineers, product managers and operations working together to address sustainability and circularity challenges related to raw material selection, natural resource consumption and product impacts. These teams place customers at the center of the process and aim to address their sustainability concerns while meeting industry and regulatory requirements.

Through our defined process, we can achieve economic benefits such as enhanced supply chain visibility, reduced raw material costs and long-term customer relationships. In 2023, we updated our process to include the Design for Sustainability and Circularity guidance, which delivers clear, actionable outputs to project teams on how to improve product sustainability and circularity throughout product life cycles using quantitative metrics that can be tracked over time toward our 2030 Sustainability Commitments.

## MATERIAL SELECTION, PRODUCT DESIGN & MANUFACTURING

Within the product development process, our designers and engineers can use tools to:

- Consider the effects of design choices on natural resources;
- Evaluate whether conducting LCAs or EPDs would help to understand product embodied carbon and meet customer reporting expectations;
- Assess opportunities for packaging circularity and sustainability; and
- Understand increases or decreases in natural resource use and emissions from the manufacturing process.

The process encourages team members to consider modularity and component standardization so our products can be serviced, remanufactured, upgraded and recycled.

## PRODUCT USE

We work with customers to extend the life of their products. Our predictive services detect minor problems before they become significant, and our maintenance and repair services extend system lifetimes and reduce wear that increases energy costs. Through regular maintenance, we can determine when retrofitting or upgrading older equipment will improve efficiency and our customers' return on investment. For short-term equipment uses, we offer rental programs with regular service intervals.



## R'Newal® Service Program

Trane® engineers design chillers to last long beyond the industry average, but our products experience normal wear and tear over decades of use. Our R'Newal® Service Program addresses the most common causes of performance decline to extend the life of our customers' chillers. The R'Newal program is a planned maintenance approach that reduces unplanned downtime and renews reliability through the repair of worn components. Trane technicians inspect critical components, identify wear or damage, install genuine parts, improve chiller efficiency and refresh worn name plates and serial numbers for legibility. The R'newal Service Program helps customers maximize efficiency while extending the life of their products and is part of our approach to design for circularity.



## End-of-life

When our products must be retired, we enable the recovery, reclamation, refurbishment, or recycling of our products to reduce waste. We provide specific end-of-life product manuals to customers with responsible disposal instructions. Many of our locations offer take-back programs and life cycle extension services.

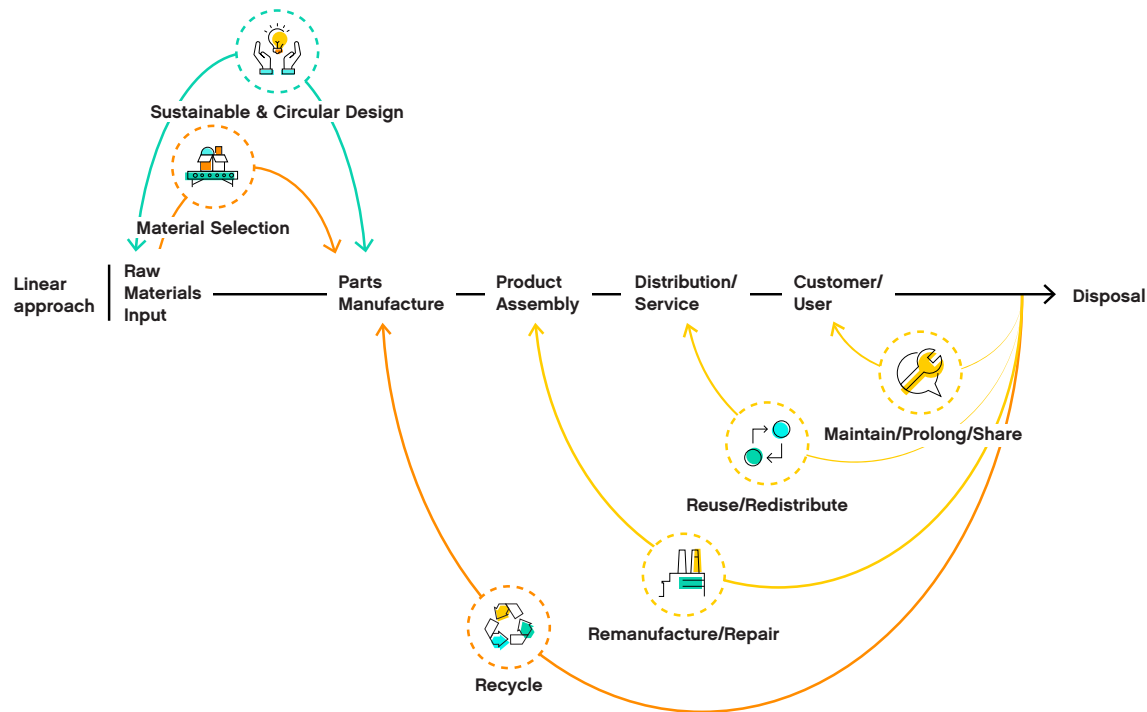
For example, we support our customers with proper refrigerant management and documentation per regulations. In partnership with U.S. Environmental Protection Agency-certified reclaimers across the United States and our Trane® Supply locations, we encourage the recovery of used refrigerants to reduce potential emissions. Our Trane Supply store associates and account managers

undergo training on how to communicate the benefits of refrigerant reclamation to customers and address their questions. Trane Supply also increased customer awareness of our reclaim program through flyers, social media posts and even a podcast on refrigerant reclamation. In 2023, we collected the equivalent of over 213,900 mtCO<sub>2</sub>e at Trane Supply locations for reuse or destruction.

Recapturing and adding raw materials back to the supply chain presents challenges as we must account for technical performance, transportation, quality control and recycling infrastructure. Our Circularity Council helps solve these challenges by improving the reuse process within our enterprise.

## Circularity process

We aspire to circularity in our value chain by selecting renewable materials, designing products for serviceability, and reclaiming materials whenever possible. Looking forward, we plan to enhance our circularity initiatives to minimize linear waste streams.



## Our strategies in action

- Material Selection**
  - Circularity of mined materials (aluminum, copper, steel)
  - Reclaimed refrigerant in new products
  - Packaging made of 100% recyclable or renewable materials
- Sustainable Design**
  - Design for Sustainability and Circularity (DfSC)
  - Embodied carbon analyses via Environmental Product Declarations (EPDs) and TM65 methodology
  - Modular design
  - Component standardization
- Maintain/Prolong/Share**
  - Intelligent services for repair/maintenance
- Reuse/Redistribute**
  - Refrigerant reclaim
  - Equipment rentals and leasing, cooling as a service
  - Returnable packaging (incoming and finished)
- Remanufacture/Repair**
  - Remanufacturing/refurbishment of compressors and motors
  - R'Newal upgrade program
- Recycle**
  - Takeback and recycling program



### EMBEDDING SUSTAINABILITY

## A win-win with a chiller buyback program

In 2023, our Dubai **sales team** successfully piloted a customer rebate program on the purchase of more efficient Trane® heating, ventilation and air conditioning (HVAC) equipment in return for their old equipment. The value of each rebate depended on the re-useability of the unit and its components; equipment was either refurbished and integrated into Trane's rental fleet or recycled depending on its return condition.

The pilot demonstrated a successful circularity initiative that reduced waste, improved operational costs and efficiencies for our customers and provided economic returns for our business and partners.



## Embodied carbon

Embodied carbon represents the carbon emissions from material extraction, processing, manufacturing, distribution and end-of-life associated with a product. Embodied carbon from our products contributes to Trane Technologies' overall carbon footprint. As we reduce our Scope 1 and 2 emissions associated with manufacturing in line with our 2030 targets, we are also decreasing embodied carbon in the products we supply to our customers.

The largest portion of our embodied carbon is generated upstream from the procurement of goods from our suppliers. Steel, aluminum and copper represent the top sources of embodied carbon of our purchased commodities. Since these metals are recyclable, we collaborate with suppliers to increase recycled content upstream, lowering our products' embodied emissions. We actively investigate closed-loop scrap recycling and optimize material efficiency to decrease waste generated and lower greenhouse gas (GHG) emissions associated with manufacturing.

We strive to measure embodied carbon in key products using life cycle assessment (LCA) tools and methodologies. Integrating embodied carbon calculations allows us to track and understand emissions "hotspots" outside of the product-use phase and prioritize reductions across our value chain.

## Low-carbon steel

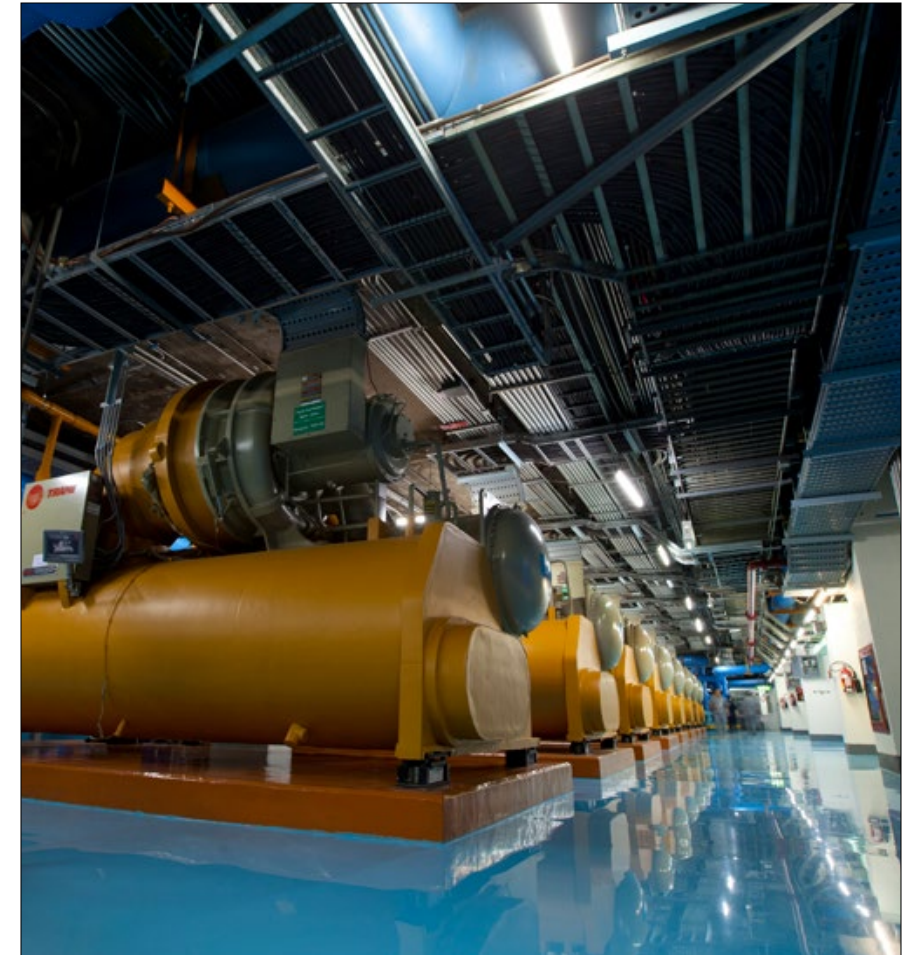
We partner with industry groups and our suppliers to help us accelerate use of low-carbon steel and help drive innovation in the steel industry which currently accounts for 8% of global carbon emissions. Low-carbon steel is nearly 80% less carbon-intensive than traditional blast furnace steel.

We are first in our industry to commit to purchasing low-carbon steel and incorporate it in our HVAC products at our Tyler, Texas, and Pueblo, Colorado facilities, serving both commercial and residential customers.

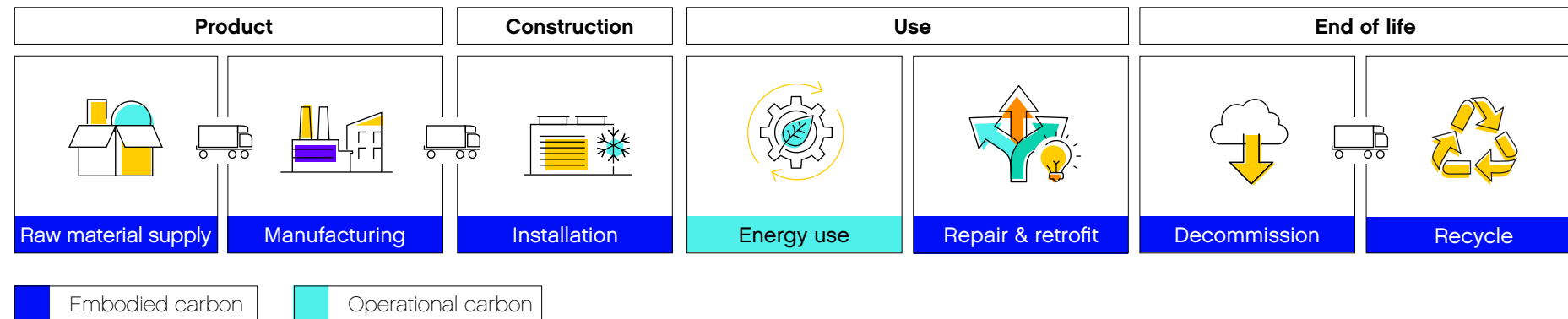
As a member of [SteelZero](#), we have pledged to procure, specify or stock 50% net-zero steel by 2030 and 100% net-zero steel by 2050. We are also a founding member of the [First Movers Coalition](#), supporting emerging green steel-making technologies such as hydrogen direct reduction and electrolysis-based production processes by committing to purchase early volumes of near-zero emissions steel.

Low-carbon steel now accounts for over 20% of Trane Technologies' annual steel purchases. In 2023, we shipped more than 1 million HVAC units made with the material to customers in the U.S.

[Read more](#) about our commitment to cultivating a more sustainable supply chain.



## Embodied carbon & operational carbon across the life cycle of a product



## Environmental Product Declarations

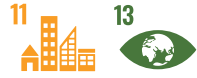
Environmental Product Declarations (EPDs) are documents used to transparently communicate the environmental performance or impact of products or materials over their lifetime. In 2023, we became the only manufacturer in North America with a published EPD for water-cooled chillers, specifically for our CenTraVac® chiller models CVHF and CDHH and Agility® model HDWA water-cooled chiller. EPDs can help customers choose the most sustainable option for their projects by assessing the embodied carbon of our building services equipment. Trane Technologies' EPDs are publicly available and reference international ISO standards that govern EPDs and LCA. The publication of our EPDs demonstrates how Trane Technologies continues to meet customer demand for transparency.





PRODUCTS & INNOVATION

# Energy-efficient & low-emission solutions




[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

GRI 3-3, SASB RT-EE-250a.1, RT-EE-250a.2

Our broad portfolio of energy-efficient and low-emission products reflects our commitment to enhancing customer operations and mitigating the effects of climate change. These advanced solutions offer sustainable alternatives to older products that may use high-global warming potential (GWP) refrigerants, require more energy for operations or run on fossil fuels. We help our customers decarbonize through electrification, low-GWP refrigerants and efficient product solutions.

Our Chief Technology and Sustainability Officer oversees innovation teams that identify opportunities to refine our product portfolio to meet our customer's needs through internal and external engagement efforts. Our Engineering teams integrate these opportunities and improvements into our product development process.

Our Networks of Excellence (NOEs) comprise groups of technical scientists and researchers that focus on the future of materials, chemistry, modeling/simulation, manufacturing, electrified systems and compression technologies. Our NOEs scan and screen technologies, develop and deploy capabilities, and enable the development of energy-efficient and low-emission solutions and help business lines commercialize new technologies.



**41%**  
of revenue was estimated as clean revenue in 2023



## Energy solutions for healthcare

As customers with an important mission, Trane® works closely with hospitals to incorporate energy efficiency into their operations in innovative ways.

- Trane collaborated with Noventa, a renewable energy company, on a Wastewater Energy Transfer™ (WET™) system for Toronto Western Hospital, supplying 90% of the hospital's heating and cooling needs and reducing emissions by 7,620 metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e) annually.
- Trane helped a leading women's hospital in Abu Dhabi find a sustainable and economical solution to supply hot and cold sanitary water for its 180-bed maternity and neo-natal care facility. Trane installed 2 City RTSF 070 water-to-water heat pumps to provide an even wider temperature range for sanitary water and reduce the hospital's carbon footprint.

Read more about these projects in [Customer-focused solutions](#).



# Clean revenue

GRI Custom: Clean revenue

We measure and track our progress toward an energy-efficient and low-emission product portfolio through revenue estimated as clean revenue, which we define as revenue from products, services and solutions that directly or indirectly help decarbonize our customers' value chain. Our definition is based on Corporate Knights' definition, the green revenue classification from FTSE and our internal expertise.

Examples of energy-efficient and low-emission solutions that contribute to our clean revenue metric may include, but are not limited to:

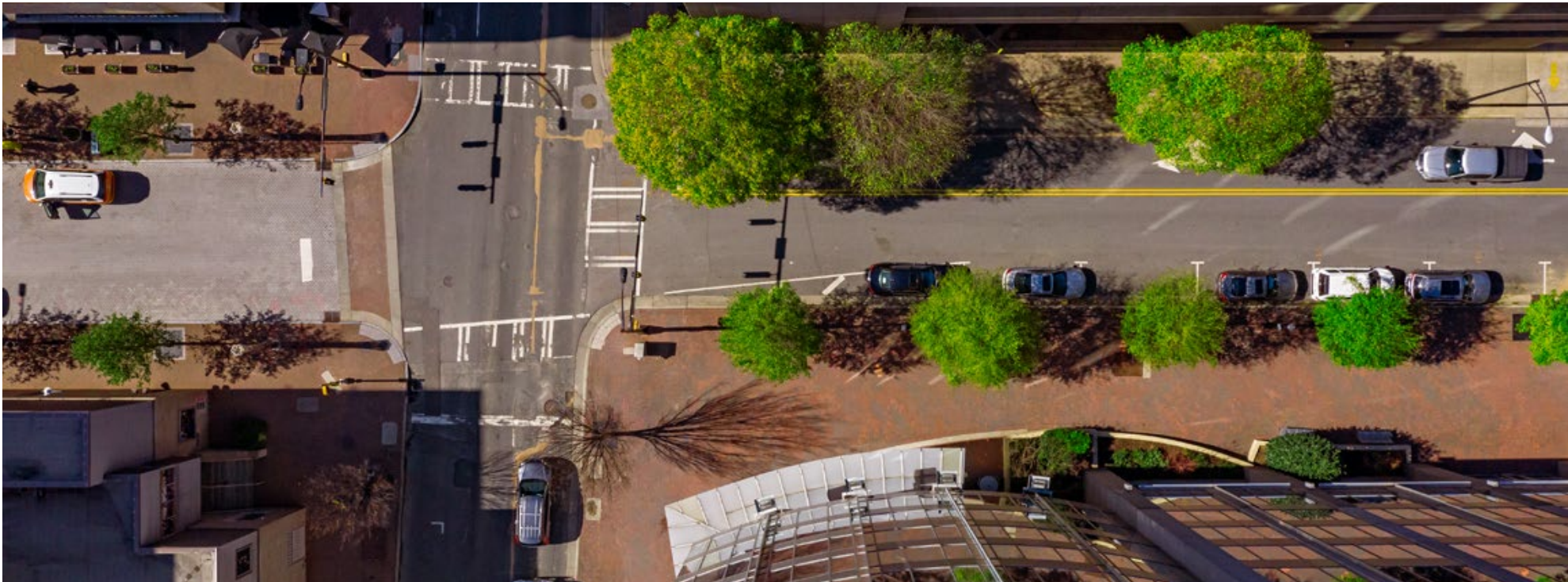
- Chiller systems that are part of the EcoWise portfolio;
- Smart thermostats and building management automation systems;
- Electric heat pumps that replace natural gas heat systems; and
- Electrified transport refrigeration units and auxiliary power units that replace diesel-powered units.

In 2023, we estimate that 41% of revenue met this clean revenue definition.

# Electrification

Reducing reliance on fossil fuels is a critical step to avoid the worst effects of climate change. We provide electrification solutions throughout our product portfolio to help customers transition away from fossil fuel consumption. We recognize that traditional energy grids heavily rely on fossil fuels, but as technology evolves and energy grids become more efficient and rely on renewable energy sources, electric solutions will generate fewer emissions.

In 2023, Thermo King® reached its [commitment](#) to deliver a fully electric, zero direct emission refrigeration solution for every cold chain segment in the Europe, Middle East and Africa region by 2023. The company is investing more than \$100 million in its all-electric evolve™ portfolio, which includes electric refrigeration solutions for truck, trailer, rail, air and marine transport.



# Low-global warming potential refrigerants

We are an industry leader in the transition to lower GWP refrigerants that help our customers reduce their carbon footprint, increase efficiency and lower operating costs. In 2023, the U.S. Environmental Protection Agency (EPA) finalized a rule to transition away from all high-GWP Hydrofluorocarbons (HFCs) starting in 2025. As of January 2024, 12 states had mandated a transition to low-GWP refrigerants. Trane Technologies will continue supporting customers in the shift to low-GWP refrigerants. Read more about our [Refrigerant management best practices](#).

We continue to evaluate new ultra-low-GWP refrigerant technologies that balance the safety, efficiency and sustainability of products. Additionally, Trane Technologies evaluates technologies, processes, systems and practices to reduce refrigerant leaks and offer customers the ability to track on-site emissions. We are engaged as an industry thought leader in the development of a circular refrigerant life cycle where refrigerants can be repurposed into new products or alternate materials.

# Non-greenhouse gas emissions

Trane Technologies' new product development process reduces nitrogen oxide gases and other emissions through improved product efficiency. Our innovative products reduce emissions from city transportation sources and dense urban built environments. For example, we offer customers the option to use Hydrotreated Vegetable Oil (HVO) fossil-free fuel in our Thermo King refrigerated truck and trailer product line, which can lead to a 30% reduction in particulate matter.

# Digital solutions & services

We help our clients reduce their carbon footprint and advance their sustainability goals through our decarbonization services.

In addition to our building controls and automation systems, our portfolio includes consulting services and audits that deliver outcomes through turnkey projects. Our team of experts and a suite of digital tools enable us to develop the best strategies for addressing Scope 1 and 2 emissions for the built environment.



## Product efficiency

Though we often go beyond regulatory requirements for efficiency, we adhere to performance levels set by external standard-setting bodies such as the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). We also adhere to the EPA ENERGY STAR® designation for Trane products and by standards set at the country, state and local levels for Thermo King products. We audit and verify the additional efficiency achieved through our services using sub-meters and utility consumption reports.

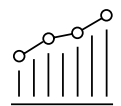
## Product reliability, safety & compliance

Our products undergo rigorous engineering analysis and testing to ensure they consistently operate in the most extreme conditions— usually when customers need our products the most.

We design for product reliability and safety to meet or exceed relevant industry standards and codes for the global markets we serve, including UL, NEC, ANSI, ASME, PED, ASHRAE and others. Our cross-functional product development process teams identify and account for Environmental, Health and Safety risks throughout every phase of the product development process. They also conduct design failure modes and effects analysis to identify potential failures and identify their causes. We also measure our products' health and safety against internal serviceability, reliability and durability metrics.

We comply with regulations and codes concerning product labeling, service information, marketing communications and customer safety. Each business takes responsibility for tracking noncompliance-related incidents in the market in which it operates, and each business unit's legal counsel follows a process to address all noncompliance issues. At an enterprise level, Trane Technologies does not collect this data or make general statements on this topic.

### Our Leadership Principle



We make better happen.

## A sample of innovative new products & services



### [Trane® IntelliPak® 1 with Symbio® 800](#)

Range of industry-leading energy-efficient rooftop units with maximized energy savings and lower operating costs. Offers three efficiency tiers, connected capabilities and seamless integration to our controls systems.



### [Trane® Aries N air-to-water chillers](#)

A natural, ultra-low-GWP refrigerant chiller for comfort cooling and industrial process cooling installations in markets like food and beverage or pharmaceuticals. These state-of-the-art chillers use R-290 (propane) natural refrigerant, providing excellent thermodynamic and energy efficiency capabilities.



### [LINK for Trane® & American Standard®](#)

Communication technology designed to simplify installation, commissioning and remote monitoring of variable speed heating, ventilation and air conditioning (HVAC) systems in residential settings, enabling more efficient and proactive service. Named ACHR NEWS' Gold-winner of the 2022 Dealer Design Awards.



### [Thermo King® Advancer-e & AxlePower](#)

Fully electric, engineless and power agnostic trailer refrigeration unit that can operate with several different power sources including the highly innovative Thermo King AxlePower. Developed in partnership with BPW Bergische Achsen KG, AxlePower generates power for the refrigeration unit by converting energy recovered by the trailer's axle during the vehicle's routine operation.



### [Trane® Thermal Battery™ Storage-Source Heat Pump](#)

A first-of-its-kind solution to advance electrified, low-carbon heating in buildings, including in climates below 0°F. The innovative system accelerates building decarbonization by combining proven heat pump technologies and thermal energy storage tanks which store heat like a battery stores electric energy, resulting in optimal system efficiency.



### [Trane® Autonomous Control powered by BrainBox AI®](#)

A one-of-a-kind solution that couples Trane's cloud-based building automation system with autonomous artificial intelligence (AI)-tech to help customers further reduce greenhouse gas (GHG) emissions and unlock operational cost savings. This solution can reduce HVAC energy costs by up to 25% for already high-performing equipment.



### [Trane® RTMG screw air-cooled multi-pipe unit](#)

Developed for strict requirements on constant temperature and humidity, such as hospitals and high-end manufacturing, RTMG units ensure more accurate temperature control of chilled and hot water, maintaining indoor air quality with high reliability, excellent energy efficiency, low noise and wide ambient temperature. When cooling and heating are running at the same time, total efficiency ratio ((cooling + heating capacity) / power input) can reach 8.0-9.0, reducing carbon emissions in buildings.





## PRODUCTS & INNOVATION

# Customer-focused solutions



[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

GRI 2-29

At Trane Technologies, we recognize our customers' collective power to create positive economic, social and environmental outcomes. Our product innovations in electrification, energy efficiency, autonomous controls and the use of low-global warming potential refrigerants help customers reduce the emissions from their buildings, homes and refrigerated transport without sacrificing safety or operating performance.

## Customer satisfaction

Through extensive testing of our products and services, we ensure optimal performance and help our customers reduce costs, become more energy efficient and meet sustainability targets.

Our Residential HVAC and Thermo King® products are distributed by certified dealers who participate in extensive training to fully understand our brands. These dealers must maintain a high customer satisfaction rating to sell our products. Some dealers have sold our products for over 25 years and help inform how we can improve and innovate based on their deep relationships with customers.

We also gather input from our customer base to understand how to best meet their evolving needs. We measure satisfaction through customer relationship surveys to provide insight into our customers' sentiments and experiences. We monitor critical key performance indicators, including our customer experience, satisfaction and ease of doing business scores.

We capture channel and end-customer feedback quarterly for each business through a global measurement process. Business leaders review feedback and develop action plans to address items that require corrective action to meet stated customer experience targets.

## Supporting customers' sustainability journeys

We take pride in our work with customers to help them save money and reduce energy and emissions to contribute to a sustainable future. Our online [Legislation and Incentives Resource Center](#) for commercial customers provides insights on the major laws, policies and incentives affecting commercial buildings today and shares expert guidance to help customers adapt for the future.

In 2023, we launched the Trane Technologies Customer Council for Sustainability. With the goal of creating an open environment for collaboration, this council brings together a diverse group of strategic customers that represent a range of sectors to discuss and collectively advance sustainability efforts. We share best practices, lessons learned, key trends, research and innovations to help our customers advance their sustainability journeys.

**“ Our message to customers is that you may invest a little more upfront, but because of the enormous efficiency and sustainability benefits from our systems, the payback time is shorter than the alternatives. ”**

Jose La Loggia, Group President, EMEA





### WOMEN'S HOSPITAL IN ABU DHABI

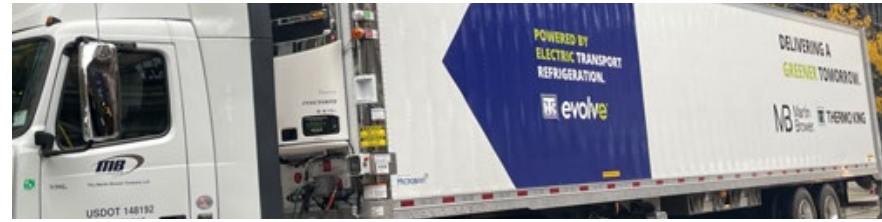
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Photo by Amy Neunsinger  
Styled by Hilary Robertson

### DESIGNER LEANNE FORD

When designer Leanne Ford wanted to renovate her family's 120-year-old Pennsylvania home and studio, she worked with Trane® first to modernize the HVAC system. With two new heat pumps paired with ComfortLink™ smart thermostats and a whole house air cleaner, Leanne was able to make a design choice to benefit the environment, improve air quality and create a beautiful space for her family and business.



### MARTIN BROWER

Thermo King® partnered with leading logistics provider Martin Brower to trial the evolve™ electric multi-temp trailer refrigeration system. Over 2 months of operations, the trailer delivered excellent performance, ensuring precise climate control to keep food fresh, maximizing its shelf life. With zero direct emissions, the electric trailer technology can help significantly decarbonize the cold chain.



### RTR GROUP

Netherlands-based RTR became the first Thermo King® customer to deploy the fully electric Advancer-e™ refrigeration unit in their fleet. Designed to accelerate carbon neutral trailer fleets, one Advancer-e unit can reduce a trailer fleet's carbon footprint by up to 10 metric tons of CO<sub>2</sub>e per year.



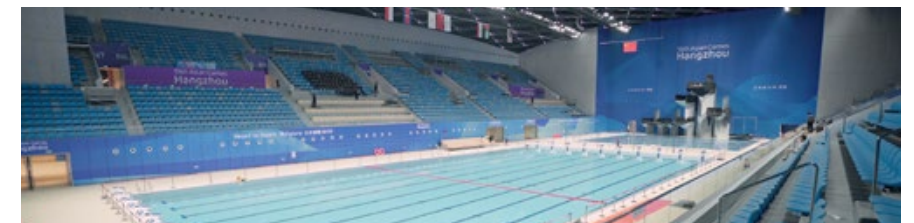
### PURE HARVEST SMART FARMS

Trane® installed a thermal management system to help Pure Harvest Smart Farms launch one of the first high-tech greenhouse projects in the Middle East. Trane designed a sustainable electrified thermal solution to meet cooling and heating and humidity requirements, which significantly improved performance, reliability and efficiency for this innovative and sustainable food producer.



### TORONTO WESTERN HOSPITAL

Trane® collaborated with Noventa, a renewable energy company, on a Wastewater Energy Transfer™ (WET™) system for the University Health Network's Toronto Western Hospital, creating the world's largest raw wastewater energy project. Trane® high-efficiency heat pumps, together with Noventa's proprietary HUBER ThermWin® technology, will help significantly reduce emissions for the hospital while supplying most of the facility's heating and cooling needs.



### THE 19TH ASIAN GAMES

Trane® supported the 19th Asian Games in Hangzhou, China, with sustainable climate solutions to provide optimal indoor environmental quality for athletes and help the Games meet their sustainability goals. Trane provided energy services and technology, including high-efficiency centrifugal chillers and air-cooled screw heat pump units for the Olympics Sports Center Stadium, the Natatorium, the Comprehensive Training Facility and the athlete hotels.





PRODUCTS & INNOVATION

# Supply chain transparency & performance



[U.N. SUSTAINABLE DEVELOPMENT GOALS →](#)

GRI 2-6, SASB RT-EE-440a.1; RT-IG-440a.1

Trane Technologies operates offices and manufacturing sites in multiple countries and uses a network of over 27,000 suppliers worldwide to source both direct material components and raw materials like steel, copper and aluminum, and indirect goods and services. We use direct material components to create our heating and cooling systems for residential, commercial and industrial applications. In 2023, our combined annual spend was over \$9.4 billion for direct material suppliers and indirect suppliers.

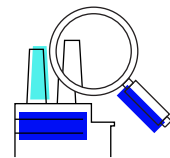
Like other global companies, our complex supply chain is subject to risk in the form of local labor law noncompliance, like harassment and corruption. Complex supply chains also present economic challenges, like labor shortages or raw material price fluctuations. Safeguarding human rights, the environment and our supply chain operations is critically important, and we continue to find ways to enhance performance and transparency. Read more about our risk management and mitigation processes in [Business integrity](#).

## Procurement process

Our Global Procurement leadership team, led by our Vice President of Enterprise Procurement, manages our strategic sourcing process. This process allows Trane Technologies to receive the highest quality goods and services possible while supporting suppliers that operate ethically and sustainably.

Our innovative supplier decision matrix empowers our procurement officers to consider not only price, but also a range of environmental, social and governance (ESG) factors such as supplier diversity, sustainability, quality and risk when selecting suppliers. A cross-functional team determines the weight of each factor within the matrix based on the criticality of ESG to the purchase.

We consult third-party data when considering new suppliers. This information gives us a snapshot of suppliers' financial health, a critical factor in our selection process. Existing suppliers are also reviewed periodically with the use of third-party data and other supplier key performance indicators as part of the supply chain management process.



# 100%

of new direct material suppliers were screened using environmental criteria through the Supplier System Assessment process in 2023



# 14,799

mtCO<sub>2</sub>e avoided in 2023 through loads shipped with SmartWay certified carriers



Our Preferred Supplier Program offers growth opportunities to suppliers that meet a set of sustainability criteria aligned with our core values. The criteria for becoming a [preferred supplier](#) are streamlined into five categories that include sustainability expectations such as consistent reporting on sustainability metrics, driving sustainability throughout the supplier's value chain, reducing carbon footprint and collaboratively working to design sustainable packaging, cubing and shipping routes. Through our Preferred Suppliers Program, we offer training on ESG objectives and our Business Partner Code of Conduct (BPCoC). At the end of 2023, 17% of direct material spend was with preferred suppliers.

## Risk assessment process

We assess our supply chain for risk on an ongoing basis through our enterprise and category risk assessment processes. In 2023, we revised our risk assessment process to include a category risk component, which allows us to assess suppliers based on the components they produce, like refrigerants or compressors. Additional information about our supply chain transparency and performance can be found in our [ESG data center](#) section.

Our Supplier System Assessment (SSA) audits allow us to evaluate sustainability and business continuity risks on a supplier-site-specific basis. Managed by a team of engineers, the SSA process evaluates risks that cover several categories including quality management, environmental protection, human rights, labor relations, cybersecurity, product and safety compliance, sub-supplier management and supply chain assessment. Suppliers are evaluated on risks associated with how they manage multi-level Tier 2 sourcing, demand planning and factory support planning. In 2023, 100% of new direct material suppliers were screened using environmental criteria through the SSA process.

Our engineers complete and review these audits on a rolling basis and, every five years, we evaluate over 1,300 of our existing suppliers through an SSA. We evaluate all new direct material suppliers using an SSA; suppliers must receive a minimum score of 80% to do business with us. None were identified as having significant actual or potential negative environmental or social impacts.

We partner with a third-party supply chain data management solution to assist in collecting and managing our supplier Conflict Mineral surveys and reports. The collected data allows us to identify and follow up with potential and high-risk suppliers. We also send out an annual Human Trafficking/ Modern Slavery Survey to our suppliers that are flagged for potential high-risk commodities and locations. Read more about how we manage [Human rights](#).

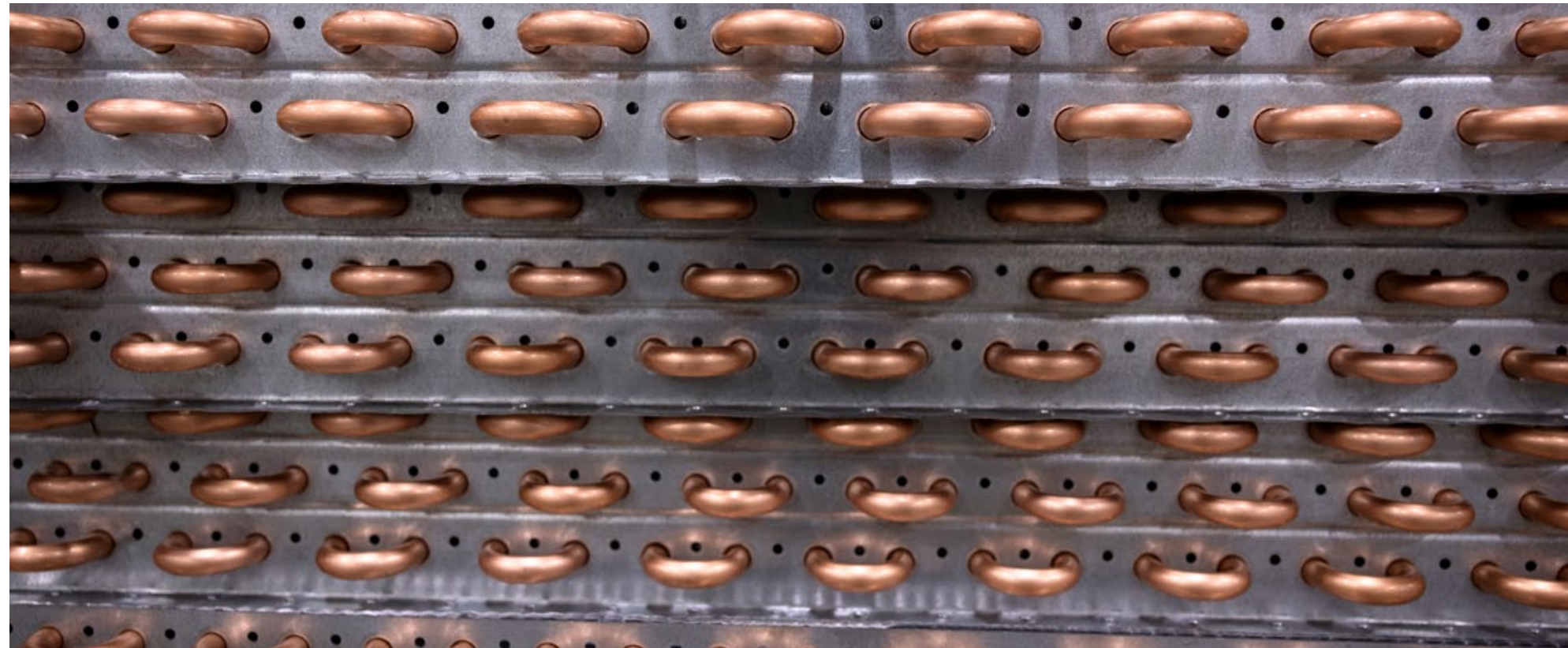
## Shared supplier sustainability goals

The Trane Technologies [Business Partner Code of Conduct \(BPCoC\)](#) communicates our expectations that suppliers operate ethically. We expect that all suppliers operate with full compliance and hold their own suppliers to the same high standards.

In addition to adhering to the ethical operating principles outlined in the BPCoC, we ask suppliers to strive toward the goals outlined in our Trane Technologies [Supplier Sustainability Expectations](#) for the benefit of our customers and the environment. We assist our suppliers in applying best practices in resource conservation and packaging, among other topics listed in our expectations. We offer training and workshops designed by in-house experts based on the needs and interests of our suppliers. For example, we work with key suppliers to improve our understanding of the specific emissions in the products we purchase and our suppliers' goals for reducing emissions.

We manage supplier EHS and sustainability data through a third-party benchmark management system that provides visibility into supplier performance against our standards. Through our Supplier Sustainability Survey, we ask suppliers a set of questions to understand their current sustainability initiatives and progress. The survey, sent to all of our preferred suppliers, aims to understand how they manage energy, emissions, waste and water usage. Once we receive this data from our suppliers, we find opportunities to support them and implement action plans to help them continue making progress.

We do not maintain relationships with suppliers who cannot uphold our BPCoC, meet quality expectations, or who violate labor standards. Read more about our ethical operations in [Business integrity](#) and our supplier expectations and management of the BPCoC in [Human rights](#).





## Logistics

Trane Technologies finds opportunities to optimize our logistics, reduce our carbon footprint and cycle time, improve labor conditions and increase transparency. Several of our efficiency strategies include:

- Using space on truckload shipments to transport greater volume in fewer trucks;
- Pooling lower-weight shipments into single truckloads for transportation to less-than-truckload carrier terminals; and
- Creating multi-stop routes and optimizing destinations.

These programs help reduce transit miles and avoid carbon dioxide emissions. For example, through pooling shipments in 2023, we consolidated nearly 34,000 tons onto approximately 5,500 full truckload shipments, avoiding an estimated 1,442 metric tons of carbon dioxide equivalent (mtCO<sub>2</sub>e). From

2022 to 2023, our dry van and flatbed truck shipment weights increased by 2.1%. The weight increase equates to the removal of 2,138 trucks traveling approximately 1.7 million miles and reduced emissions by 2,628 mtCO<sub>2</sub>e.

Our Dedicated Carrier Program focuses on reducing empty trailer miles. In 2023, shipments hauled by our Dedicated Carrier Program reduced their empty miles by 87%, leading to an emissions reduction of approximately 2,500 mtCO<sub>2</sub>e. With one of our international transportation partners, we participated in their sustainable fuel program, which confirms our shipments in scope and then ensures a corresponding amount of sustainable marine fuel is used on container vessels. In 2023, this program resulted in an emission reduction of approximately 785 mtCO<sub>2</sub>e.

We also prioritize SmartWay® carriers, a U.S. Environmental Protection Agency program that promotes freight efficiency and sustainability through transparent data tracking. In 2023, 55% of loads shipped with SmartWay certified carriers, avoiding approximately 15,000 mtCO<sub>2</sub>e compared to non-SmartWay carriers.



### Supplier collaboration to advance sustainability in the HVAC industry with Danfoss

In 2023, Trane Technologies collaborated with Danfoss, a manufacturer of critical HVAC components like compressors and heat exchangers, to drive sustainable innovations focused on returnable packaging, product decarbonization and circularity.

We explored and piloted six different returnable packaging opportunities at manufacturing sites and are in the process of implementing a solution at our Monterrey, Mexico, site with potential savings of 78 tons of solid waste and 22 metric tons of CO<sub>2</sub>e per year. Through this process we also developed a returnable packaging opportunity matrix that enables the prioritization of resources toward projects that deliver significant sustainability benefits. Read more about our [returnable packaging program](#).

Through our collaboration on decarbonization we have quantified the environmental impact of the heat exchangers supplied by Danfoss and are working on solutions to reduce their embodied carbon and increase opportunities such as product take-back programs.





# Data & frameworks

[A note about our data](#) →

[United Nations Sustainable Development Goals](#) →

[Forward-looking statements](#) →

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[TCFD content index](#) →

[WEF content index](#) →

[ESG data center](#) →





## DATA & FRAMEWORKS

# A note about our data

GRI 2-4, 2-5

Throughout this report, we define our organizational boundary using the financial control approach and report on Scope 1 and 2 GHG emissions using the GHG Protocol. We believe this most accurately reflects the direct impact of our operational footprint. Our company's Scope 3 product-related emissions are those emissions associated with the product-use phase and cover the majority of revenue associated with our diverse product portfolio. For data associated with our company's 2030 Gigaton Challenge commitment, heating and cooling output is normalized for growth to capture product performance improvements.

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 our company 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 environmental data we report improves in accuracy and expands in breadth.

We present data in absolute terms and normalize it by our revenue (intensity). Our safety data is normalized by the number of hours worked. Data presented represents the reporting period from January 1, 2023 to December 31, 2023 unless otherwise noted.

Our select environmental, health and safety (EHS) data and GHG emissions data receive limited assurance annually, including the product-use emissions contributing to the Gigaton Challenge. View the results in our [2023 Limited Assurance Report](#).

## **FORWARD-LOOKING STATEMENTS**

This report contains certain forward-looking statements, which are statements that are not historical facts, including statements regarding our 2030 Sustainability Commitments; our pathway to net-zero by 2050; our ESG targets, goals, commitments and programs; and other business plans, initiatives and objectives. These forward-looking statements are based on our current expectations and are subject to risks and uncertainties, which may cause actual results to differ materially from our current expectations. These forward-looking statements generally are identified by the words "aim," "believe," "project," "dedicate," "expect," "commit," "estimate," "propose," "forecast," "intend," "strategy," "invest," "plan," "may," "could," "should," "will," "would," "will be," "will continue," "will likely result" or the negative thereof or variations thereon, or similar terminology generally intended to identify forward-looking statements.

All such statements are intended to enjoy the protection of the safe harbor for forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. Our actual future results, including the achievement of our targets, goals or commitments, could differ materially from our projected results as a result of changes in circumstances, assumptions not being realized or other risks, uncertainties and factors. Such risks, uncertainties and factors include the risk factors discussed in Item 1A of our most recent Annual Report on Form 10-K and subsequent quarterly reports on Form 10-Q filed with the SEC. We urge you to consider all the risks, uncertainties and factors identified above or discussed in such reports carefully in evaluating the forward-looking statements in this report. New risks and uncertainties arise from time to time, and it is impossible for us to predict these events and how they may affect our company. We assume no obligation to update these forward-looking statements.





## Reporting frameworks

Our annual ESG Report aligns with leading ESG and sustainability reporting frameworks.



**Global Reporting Initiative (GRI):** The GRI Standards are fundamental to our reporting process. This report has been prepared in accordance with the GRI Standards. See our [GRI content index](#) for an overview of disclosures on our material ESG topics.



**Sustainability Accounting Standards Board (SASB):** As a diversified manufacturer, we report to both the Electric & Electronic Equipment and the Industrial Machinery & Goods industries. See our [SASB content index](#) for details.



**Task Force on Climate-related Financial Disclosures (TCFD):** We strongly support TCFD through [supporter sign on](#) and align with the Task Force's voluntary disclosures. See our [TCFD content index](#) for details.



**World Economic Forum (WEF) Stakeholder Capitalism Metrics:** We disclose our performance against the WEF's Stakeholder Capitalism Metrics to demonstrate our performance on sustainability topics and contributions to the United Nations Sustainable Development Goals. See our [WEF content index](#) for details and read more about our alignment with the [United Nations Sustainable Development Goals](#).



**CDP (formerly known as the Carbon Disclosure Project):** We voluntarily respond to CDP's [Climate Change](#) and [Water](#) questionnaires.



**United Nations Global Compact (UNGC):** We align our operations and strategy with the universally accepted Ten Principles outlined by UNGC in the areas of human rights; Environment, Health and Safety; and anti-corruption. See our Global Compact status [here](#).



## United Nations Sustainable Development Goals

The [United Nations \(U.N.\) Sustainable Development Goals \(SDGs\)](#) call for a more sustainable and united world through individual, business and global action. We set ambitious [2030 Sustainability Commitments](#) that demonstrate our pledge to address environmental and socioeconomic topics in line with the SDGs.



Using Trucost's SDG Evaluation Tool, we identified three primary SDGs on which we could have the most meaningful impact.



### SDG 5: Gender Equality

We are working toward gender parity in management and leadership as part of our Opportunity for All goals. We continue to advance gender equality in our [hiring and recruiting practices](#) by providing bias training and offering [learning programs](#) that help women develop leadership skills to grow in their careers.

We also promote diversity among our suppliers and use a strategic sourcing development process that analyzes various factors, including [suppliers' Diversity & Inclusion policies](#). Our supplier diversity program works toward increasing our spend with diverse-owned businesses in the U.S. market.



### SDG 7: Affordable & Clean Energy

As part of [RE100](#), we are committed to sourcing 100% renewable energy by 2040, which exceeds RE100 requirements. Accordingly, we employ energy efficiency measures across our enterprise, purchase renewable energy for our operations, work to advance policies to increase the availability of renewable energy and create innovative energy-efficient products and energy

management solutions to reduce our customers' energy consumption profiles. Our 2030 Sustainability Commitments, including the [Gigaton Challenge](#), reflect our steadfast efforts to create product solutions that decrease energy use without sacrificing performance.



### SDG 13: Climate Action

Trane Technologies proactively works to decrease greenhouse gas emissions caused by heating and cooling and to mitigate food loss during transportation. As a global climate innovator and sustainability leader, we decarbonize our footprint by:

- Using low-global warming potential [refrigerants](#);
- Developing system-level [energy-efficient solutions](#);
- Offering fully electric heating and transport [refrigeration products](#);

- Initiating [renewable energy programs](#);
- Leading our industry in the transition and use of [low-carbon materials](#);
- [Advancing policies](#) to increase the adoption of decarbonized heating and cooling; and
- Educating our team members, suppliers, customers, policymakers and other stakeholders on the effects of [climate change](#).





## Further SDG support



### SDG 2: ZERO HUNGER

Our Thermo King® cooling solutions help protect food in transit, reducing food loss. We also work with food producers like Pure Harvest Smart Farms in harsh climate zones like the Middle East, using Trane® systems to create optimal indoor environments for growing fresh produce. These innovative solutions increase the availability of fresh food in underserved regions. Read more in [Customer-focused solutions](#).



### SDG 3: GOOD HEALTH & WELL-BEING

We promote the physical and mental well-being of our team members through benefits, including an Employee Assistance Program, parental leave and family care policies. Read more about our benefits in the [Company culture](#) section.



### SDG 4: QUALITY EDUCATION

We encourage and invest in employee learning and career development through Trane Technologies University and our micro-learning platform. We contribute to external educational organizations like Discovery Education, which enhance access to science, technology, engineering and mathematics for underrepresented students. Read more about our [Learning & development](#) programs and educational support in line with our [Corporate citizenship](#) strategies.



### SDG 9: INDUSTRY, INNOVATION & INFRASTRUCTURE

Our building automation services, advanced heat pumps and thermal management systems and Thermo King telematics demonstrate our focus on innovating resilient and efficient products. We support policies to upgrade infrastructure to enable decarbonization. Read more about our [Technology & innovation](#) solutions and [policy efforts](#) that align with advancing sustainable infrastructure.



### SDG 10: REDUCED INEQUALITIES

A diverse, inclusive workforce will support Trane Technologies' future growth and innovation, which is why Opportunity for All is one of our three core 2030 Sustainability Commitments pillars. We invest in underrepresented communities, create diverse hiring pipelines and strive to create a workforce that mirrors our communities. Learn more about our [Diversity & Inclusion](#) initiatives.



### SDG 11: SUSTAINABLE CITIES & COMMUNITIES

We continue to reduce our emissions and improve air quality in local communities. For example, in 2023, Thermo King delivered on its commitment to provide a fully electric, zero-emission refrigeration solution for every cold chain segment in the Europe, Middle East and Africa region by 2023. By fulfilling this commitment, Thermo King is helping customers transition to more sustainable fleet solutions while reducing their carbon footprints. Read more about our emission-reducing products in the [Energy-efficient & low-emission solutions](#) section.



### SDG 12: RESPONSIBLE CONSUMPTION & PRODUCTION

We have established strict sourcing requirements and conduct policies for our suppliers in our [Business Partner Code of Conduct](#), [Sustainable Procurement Policy](#) and [Global Human Rights Policy](#). We also invest significant resources in diverse-owned businesses and prioritize sourcing for region by region to create a more inclusive and sustainable supply chain. Read more about our [Supplier diversity](#) practices.





DATA & FRAMEWORKS

# GRI content index

**Statement of Use:** Trane Technologies has reported in accordance with the GRI Standards for the period 1 January 2023 – 31 December 2023.

## GRI 2: General Disclosures 2021

Disclosure number	GRI disclosure title	2023 direct response or location
<b>The organization and its reporting practices</b>		
2-1	Organizational details	Trane Technologies 170/175 Lakeview Drive Airside Business Park Swords, Co. Dublin, Ireland <a href="#">Form 10-K: Part I, Item 2</a> <a href="#">Form 10-K: Cover page and Item 1</a>
2-2	Entities included in the organization's sustainability reporting	<a href="#">Form 10-K; Part I</a>
2-3	Reporting period, frequency and contact point	Reporting period: 1 January 2023 – 31 December 2023 Reporting frequency: Annual Date of report publication: 10 May 2024 Point of contact: Carrie Ruddy, <a href="mailto:carrie.ruddy@tranetechnologies.com">carrie.ruddy@tranetechnologies.com</a>
2-4	Restatements of information	<a href="#">Data &amp; frameworks</a>
2-5	External assurance	<a href="#">Data &amp; frameworks</a> <a href="#">2023 Limited Assurance Report</a>  Select environmental, health and safety and GHG data receive limited assurance annually. The assurance process is led by the Vice President, Environmental, Health and Safety Operations who reports to Executive Vice President and Chief Integrated Supply Chain Officer.
<b>Activities and workers</b>		
2-6	Activities, value chain and other business relationships	<a href="#">Form 10-K: Part I</a> <a href="#">Form 10-K: Part I and Part II</a> <a href="#">Supply chain transparency &amp; performance</a>  During the reporting year, there were no major changes within our supply chain.
2-7	Employees	<a href="#">Global workforce</a> <a href="#">ESG data center</a> <a href="#">EEO-1 report</a>  Our workforce breakdown includes the total number of full-time and hourly employees by region and gender. We employ contractors but do not currently track the region and gender breakdown of the contractor workforce. We did not experience significant fluctuations in our workforce during the reporting period.



Disclosure number	GRI disclosure title	2023 direct response or location
2-8	Workers who are not employees	<a href="#">Global workforce</a> <a href="#">ESG data center</a>
<b>Governance</b>		
2-9	Governance structure and composition	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-10	Nomination and selection of the highest governance body	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-11	Chair of the highest governance body	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-12	Role of the highest governance body in overseeing the management of impacts	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-13	Delegation of responsibility for managing impacts	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-14	Role of the highest governance body in sustainability reporting	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-15	Conflicts of interest	<a href="#">2023 Annual Report</a> The company's Conflicts of Interest Policy requires employees to disclose actual or potential conflicts of interest in a variety of categories, which generally capture the four categories of conflicts defined by GRI 2-16-b. Each disclosure is reviewed by the company's Ethics and Compliance Group and disclosed to the employee's manager. Conflict disclosures are escalated within the company, including the Board of Directors, as necessary to effectively eliminate or mitigate the conflict.
2-16	Communication of critical concerns	<a href="#">Business integrity</a> <a href="#">2023 Annual Report</a> The company's Vice President and Deputy General Counsel, Compliance and M&A reports six times a year on critical concerns to the company's Global Business Integrity Council (GBIC) and to the Audit Committee of the Board of Directors at each Board meeting. The GBIC brings executive focus and expertise to drive consistent implementation of risk-based compliance solutions to prevent, detect and remediate misconduct and promote an ethical culture. The GBIC is chaired by the CEO and co-owned by the General Counsel and the Vice President and Deputy General Counsel, Compliance and M&A who acts as the company's Chief Ethics and Compliance Officer. Other members of the Council include the President and Chief Executive Officer, Senior Vice President and Chief Financial Officer, Senior Vice President and Chief Human Resources Officer and the Vice President, Audit Services. As defined in its charter, the Council executes the company's global ethics and compliance program and supervises subordinate regional compliance committees. If necessary, the Vice President and Deputy General Counsel, Compliance and M&A has access to the Chair of the Audit Committee to escalate any particular concern immediately. Several times during the year, the Vice President and Deputy General Counsel, Compliance and M&A has executive sessions with the Audit Committee, without management present, to review potential escalations.

Disclosure number	GRI disclosure title	2023 direct response or location
2-17	Collective knowledge of the highest governance body	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-18	Evaluation of the performance of the highest governance body	<a href="#">ESG management</a> <a href="#">2023 Annual Report</a>
2-19	Remuneration policies	<a href="#">2023 Annual Report</a>
2-20	Process to determine remuneration	<a href="#">2023 Annual Report</a>
2-21	Annual total compensation ratio	<a href="#">2023 Annual Report</a>
<b>Strategies, policies, and practices</b>		
2-22	Statement on sustainable development strategy	<a href="#">CEO Letter to Stakeholders</a>
2-23	Policy commitments	Our environmental, health and safety, and ethical operations policies are described throughout our ESG report. Links, applicable activities and communication processes are described in the relevant section. <a href="#">Business integrity</a> <a href="#">Company culture</a> <a href="#">Environmental health &amp; safety management</a> <a href="#">Human rights</a>
2-24	Embedding policy commitments	<a href="#">Business integrity</a> <a href="#">Company culture</a> <a href="#">Environmental health &amp; safety management</a> <a href="#">Human rights</a>
2-25	Processes to remediate negative impacts	<a href="#">Business integrity</a>
2-26	Mechanisms for seeking advice and raising concerns	<a href="#">Business integrity</a>
2-27	Compliance with laws and regulations	Trane Technologies operates with integrity and expects all employees and business partners to uphold the same ethical standards. The number of Instances of non-compliance and the monetary value of fines for instances of non-compliance are considered confidential.
2-28	Membership associations	<a href="#">Memberships &amp; partnerships</a>
<b>Stakeholder engagement</b>		
2-29	Approach to stakeholder engagement	<a href="#">Materiality</a> <a href="#">Customer-focused solutions</a> <a href="#">Public policy</a>
2-30	Collective bargaining agreements	16.3% of global workforce covered by collective bargaining agreements. Trane Technologies determines working conditions and terms of employment on a regional, country and industry specific basis.



## GRI 3: Material Topics 2021

Disclosure number	GRI disclosure title	2023 direct response or location
3-1	Process to determine material topics	<a href="#">Materiality</a>
3-2	List of material topics	<a href="#">Materiality</a>
<b>Business Integrity   GRI 205: Anti-Corruption 2016</b>		
3-3	Management of material topics	<a href="#">Business integrity</a>
205-2	Communication and training about anti-corruption policies and procedures	<a href="#">Business integrity</a> Our anti-corruption policy is communicated to 100% of employees, including our Board of Directors, through our Code of Conduct and to 100% of our business partners through the Business Partner Code of Conduct. All salaried employees, including the Board of Directors, must complete anti-corruption training upon hire and every two or three years based on a risk analysis of their function at the company.
<b>Climate Risk   GRI 201: Economic Performance 2016</b>		
3-3	Management of material topics	<a href="#">Climate change</a>
201-2	Financial implications and other risks and opportunities due to climate change	<a href="#">Climate change</a> <a href="#">TCFD content index</a> <a href="#">CDP Climate Change</a>
<b>Company Culture   GRI 401: Employment 2016</b>		
3-3	Management of material topics	<a href="#">Company culture</a>
401-1	New employee hires and employee turnover	<a href="#">Company culture</a> <a href="#">ESG data center</a>
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<a href="#">Company culture</a> <a href="#">ESG data center</a>
401-3	Parental leave	<a href="#">Company culture</a> <a href="#">ESG data center</a>
<b>Diversity &amp; Inclusion   GRI 405: Diversity &amp; Equal Opportunity 2016</b>		
3-3	Management of material topics	<a href="#">Diversity &amp; Inclusion</a>
405-1	Diversity of governance body and employees	<a href="#">Diversity &amp; Inclusion</a> <a href="#">ESG data center</a> <a href="#">EEO-1 report</a>

Disclosure number	GRI disclosure title	2023 direct response or location
<b>GHG Emissions   GRI 305: Emissions 2016</b>		
3-3	Management of material topics	<a href="#">Greenhouse gas emissions</a>
305-1	Energy direct (Scope 1) GHG emissions	<a href="#">Greenhouse gas emissions</a> <a href="#">ESG data center</a> Gases included in the calculation: CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs Base year for the calculation: 2019 Source of emissions factors and the GWP rates used: EPA Climate Leaders, Emission Factors for Greenhouse Gas Inventories, 18 April 2023; 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, April, 2020 Consolidated approach for emissions: Financial control Standards, methodologies, assumptions and/or calculation tools used: World Resources Institute, The Greenhouse Gas Protocol (Data & Report)
305-2	Energy indirect (Scope 2) GHG emissions	<a href="#">Greenhouse gas emissions</a> <a href="#">ESG data center</a> Gases included in the calculation: CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs and small quantities of HCFCs (e.g., R22) Base year for the calculation: 2019 Source of emissions factors and the GWP rates used: USA location factors: 2020 eGRID, eGRID2020-data.xlsx, January 27, 2022 Other locations: International Energy Agency, IEA (2021) Emission Factors Consolidated approach for emissions: Financial control Standards, methodologies, assumptions and/or calculation tools used: World Resources Institute, The Greenhouse Gas Protocol
305-3	Other indirect (Scope 3) GHG emissions	<a href="#">Greenhouse gas emissions</a> <a href="#">ESG data center</a> Gases included in Scope 3 calculations: All Data sources and calculation methodologies vary based on the most relevant Scope 3 category calculated. Base year: 2019
305-4	GHG emissions intensity	<a href="#">Greenhouse gas emissions</a> <a href="#">ESG data center</a> Organization-specific metric (the denominator): Million USD Types of GHG emissions included in the intensity ratio: Scope 1 and market-based Scope 2 Gases included in the calculation: CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O



Disclosure number	GRI disclosure title	2023 direct response or location
305-5	Reduction of GHG emissions	<p><a href="#">Greenhouse gas emissions</a> <a href="#">ESG data center</a></p> <p>Gases included in the calculation: CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O</p> <p>Base year or baseline: 2019</p> <p>Scopes in which reductions took place: Scope 1 and Scope 2</p> <p>Standards, methodologies, assumptions and/or calculation tools used: GRI 305: Emissions 2015, Disclosure 305-5</p>
305-6	Emissions of Ozone-Depleting Substances (ODS)	Trane Technologies is not a manufacturer of ODSs based on its interpretation of GRI 305-6.
305-7	Nitrogen Oxides (NO <sub>x</sub> ), Sulfur Oxides (SO <sub>x</sub> ), and other significant air emissions	<p><a href="#">ESG data center</a></p> <p>Persistent organic pollutants, volatile organic compounds, hazardous air pollutants, particulate matter and other standard categories of air emissions identified in relevant regulations are not significant air emissions for Trane Technologies.</p> <p>Source of emission factors: 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</p> <p>Standards, methodologies, assumptions and/or calculation tools used: General calculation method is material usage multiplied by emissions factor</p>
<b>Energy   GRI 302: Energy 2016</b>		
3-3	Management of material topics	<a href="#">Energy</a>
302-1	Energy consumption within the organization	<p><a href="#">Energy</a> <a href="#">ESG data center</a></p> <p>Standards, methodologies, assumptions and/or calculation tools used: GRI 302: Energy 2016, Disclosure 302-2</p> <p>Source of emission factors: IPCC AR5 – Climate Change 2013; EPA Climate Leaders, Emission Factors for Greenhouse Gas Inventories, April 2023; 2017 Climate Registry Default Emissions Factors Report, Table B.2, April, 2020.</p>
302-2	Energy consumption outside the organization	All energy was consumed within the organization.
302-3	Energy intensity	<p><a href="#">Energy</a> <a href="#">ESG data center</a></p> <p>Organization-specific metric (the denominator): revenue</p> <p>Types of energy included in the intensity ratio: Fuel, heating and electricity</p> <p>All energy used was consumed inside the organization. Calculated using Trane Technologies' energy usage and multiplying against relevant DEFRA and IEA emission factors</p>

Disclosure number	GRI disclosure title	2023 direct response or location
302-4	Reduction of energy consumption	<p><a href="#">Energy</a> <a href="#">ESG data center</a></p> <p>Types of energy included in the reductions: fuel, heating and electricity</p> <p>Base year for targets: Calendar year 2019</p> <p>Methodology: GRI 302: Energy 2016: 302-4</p>
<b>Energy Efficient &amp; Low Emission Products   GRI: Custom Disclosure</b>		
3-3	Management of material topics	<a href="#">Energy-efficient &amp; low-emission solutions</a>
Custom	Clean revenue	<p><a href="#">Energy-efficient &amp; low-emission solutions</a> <a href="#">ESG data center</a></p>
<b>Sustainable Product Design &amp; Life Cycle   GRI 301: Materials 2016</b>		
3-3	Management of material topics	<a href="#">Circularity: Product life cycle &amp; materials</a>
301-2	Recycled input materials used	<p><a href="#">Circularity: Product life cycle &amp; materials</a> <a href="#">ESG data center</a></p>
<b>Technology &amp; Innovation   GRI: Custom Disclosure</b>		
3-3	Management of material topics	<a href="#">Technology &amp; innovation</a>
Custom	Average revenue from innovation	<p><a href="#">Technology &amp; innovation</a> <a href="#">ESG data center</a></p>



# SASB content index

Disclosure number	Disclosure	Industry	Unit	Location or direct response
<b>Accounting metrics</b>				
RT-EE-000.A; RTIG-000.A	Number of units produced by product category	Electrical and Electronic Equipment Industrial Machinery and Goods	Number	Proprietary
RT-EE-000.B; RTIG-000.B	Number of employees	Electrical and Electronic Equipment Industrial Machinery and Goods	Number	Global Workforce (employees and contractors): 42,840
<b>Energy management</b>				
RT-EE-130a.1; RTIG-130a.1	1. Total energy consumed, 2. percentage grid electricity, 3. percentage renewable	Electrical and Electronic Equipment Industrial Machinery and Goods	Gigajoules (GJ), Percentage (%)	<a href="#">Energy</a> 1. 3,032 billion kJ energy consumed, 2. 32% grid electricity, 3. 68% renewable
<b>Product lifecycle management</b>				
RT-EE-410a.1	Percentage of products by revenue that contains IEC 62474 declarable substances	Electrical and Electronic Equipment	Percent (%) by revenue	Data not available
RT-EE-410a.2	Percentage of eligible products, by revenue, that meet ENERGY STAR® criteria	Electrical and Electronic Equipment	Percent (%) by revenue	In 2023, 17% of revenue is from products that can meet the efficiency metrics specified by ENERGY STAR® for Residential Furnaces and Residential & Light Commercial Central Air-conditioners and Heat Pumps.
RT-EE-410a.3	Revenue from renewable energy-related and energy efficiency-related products	Electrical and Electronic Equipment	Reporting currency	Approximately 41% revenue from products and services that contribute to the clean energy transition.

Disclosure number	Disclosure	Industry	Unit	Location or direct response
<b>Hazardous waste management</b>				
RT-EE-150a.1	Amount of hazardous waste generated, percentage recycled	Electrical and Electronic Equipment	Metric tons (t), Percentage (%)	Amount of hazardous waste generated: 971 metric tons  Based on SASB's assessment test, we've determined this isn't material. Learn more about our waste reduction processes on the <a href="#">Waste</a> page.
RT-EE-150a.2	Number and aggregate quantity of reportable spills, quantity recovered	Electrical and Electronic Equipment	Number, Kilograms (kg)	Zero reportable spills in 2023
<b>Product safety</b>				
RT-EE-250a.1	Number of recalls issued, total units recalled	Electrical and Electronic Equipment	Number	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Energy-efficient &amp; low-emission solutions</a> page.
RT-EE-250a.2	Total amount of monetary losses as a result of legal proceedings associated with product safety	Electrical and Electronic Equipment	Reporting currency	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Energy-efficient &amp; low-emission solutions</a> page.
<b>Materials sourcing</b>				
RT-EE-440a.1; RT-IG-440a.1	Description of the management of risks associated with the use of critical materials	Electrical and Electronic Equipment Industrial Machinery and Goods	N/A	<a href="#">Circularity: Product life cycle &amp; materials</a> <a href="#">Supply chain transparency &amp; performance</a>



Disclosure number	Disclosure	Industry	Unit	Location or direct response
<b>Business ethics</b>				
RT-EE-510a.1	Description of policies and practices for prevention of: 1. corruption and bribery and 2. anti-competitive behavior	Electrical and Electronic Equipment	N/A	<a href="#">Business integrity</a>
RT-EE-510a.2	Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	Electrical and Electronic Equipment	Reporting currency	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Business integrity</a> page.
RT-EE-510a.3	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	Electrical and Electronic Equipment	Reporting currency	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Business integrity</a> page.
<b>Employee health &amp; safety</b>				
RT-IG-320a.1	1. Total recordable incident rate (TRIR), 2. fatality rate, and 3. near miss frequency rate (NMFR)	Industrial Machinery and Goods	Rate	1. TRIR: 0.83 2. Fatality Rate: 0 3. Trane Technologies tracks lost-time incident rates among employees and contractors.  For more information on this topic, please see our <a href="#">Occupational health &amp; safety</a> page.
<b>Fuel economy &amp; emissions in use-phase</b>				
RT-IG-410a.1	Sales-weighted fleet fuel efficiency for medium- and heavy-duty vehicles	Industrial Machinery and Goods	Gallons per 1,000 ton-miles	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Greenhouse gas emissions</a> page.
RT-IG-410a.2	Sales-weighted fuel efficiency for non-road equipment	Industrial Machinery and Goods	Gallons per hour	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Greenhouse gas emissions</a> page.

Disclosure number	Disclosure	Industry	Unit	Location or direct response
RT-IG-410a.3	Sales-weighted fuel efficiency for stationary generators	Industrial Machinery and Goods	Watts per gallon	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Greenhouse gas emissions</a> page.
RT-IG-410a.4	Sales-weighted emissions of: 1. nitrogen oxides (NO <sub>x</sub> ) and 2. particulate matter (PM) for: a) marine diesel engines, b) locomotive diesel engines, c) on-road medium- and heavy-duty engines, and d) other non-road diesel engines	Industrial Machinery and Goods	Grams per kilowatt-hour	Based on SASB's assessment test, we've determined this isn't material.  For more information on this topic, please see our <a href="#">Greenhouse gas emissions</a> page.
<b>Remanufacturing design &amp; services</b>				
RT-IG-440b.1	Revenue from remanufactured products and remanufacturing services	Industrial Machinery and Goods	Reporting currency	2023 Revenue: \$104 million  <a href="#">Circularity: Product life cycle &amp; materials</a>



# TCFD content index

Disclosure	2023 source	
<b>Governance</b>		
a) Describe the board's oversight of climate-related risks and opportunities.	2023 ESG Report	<a href="#">ESG management</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Question C1.1a</a>
b) Describe management's role in assessing and managing climate-related risks and opportunities.	2023 ESG Report	<a href="#">ESG management</a> <a href="#">Climate change</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Questions C1.2 and C1.2a</a>
<b>Strategy</b>		
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.	2023 Annual Report	<a href="#">2023 Annual Report</a>
	2023 ESG Report	<a href="#">Climate change</a> <a href="#">Greenhouse gas emissions</a> <a href="#">Public policy</a> <a href="#">Energy-efficient &amp; low-emission solutions</a> <a href="#">Technology &amp; innovation</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Questions C2.3a and C2.4a</a>
b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.	2023 Annual Report	<a href="#">2023 Annual Report</a>
	2023 ESG Report	<a href="#">Climate change</a> <a href="#">Greenhouse gas emissions</a> <a href="#">Public policy</a> <a href="#">Energy-efficient &amp; low-emission solutions</a> <a href="#">Technology &amp; innovation</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Questions C3.3 and C3.4</a>
c) Describe the potential impact of different scenarios, including a 2°C scenario, on the organization's businesses, strategy and financial planning.	2023 ESG Report	<a href="#">Climate change</a> <a href="#">ESG management</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Questions C1.2 and C2.2a</a>
<b>Risk management</b>		
a) Describe the organization's process for identifying and assessing climate-related risks.	2023 ESG Report	<a href="#">Data &amp; frameworks</a> <a href="#">Climate change</a> <a href="#">ESG management</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Question C2.2</a>

Disclosure	2023 source	
b) Describe the organization's processes for managing climate-related risks.	2023 ESG Report	<a href="#">Climate change</a> <a href="#">ESG management</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Question C2.2</a>
c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	2023 ESG Report	<a href="#">Climate change</a> <a href="#">ESG management</a>
	2023 CDP Climate Change Questionnaire	<a href="#">Question C1.2 and C2.2</a>
<b>Metrics &amp; targets</b>		
a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	2023 ESG Report	<a href="#">Ambitions</a>
		<a href="#">Sustainable Development Goals</a>
		<a href="#">Climate change</a>
		<a href="#">Greenhouse gas emissions</a>
		<a href="#">Energy</a>
		<a href="#">Water</a>
		<a href="#">Energy-efficient &amp; low-emission solutions</a>
		<a href="#">Circularity: Product life cycle &amp; materials</a>
		<a href="#">Technology &amp; innovation</a>
		<a href="#">Supply chain transparency &amp; performance</a>
b) Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	2023 ESG Report	<a href="#">Greenhouse gas emissions</a>
		<a href="#">GRI content index</a> <a href="#">ESG data center</a>
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	2023 ESG Report	<a href="#">Question C4.1a</a>
		2023 CDP Climate Change Questionnaire
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	2023 ESG Report	<a href="#">Ambitions</a>
		<a href="#">Climate change</a>
		<a href="#">Greenhouse gas emissions</a>
		<a href="#">Energy</a>
		<a href="#">Water</a>
		<a href="#">Energy-efficient &amp; low-emission solutions</a> <a href="#">Circularity: Product life cycle &amp; materials</a> <a href="#">ESG data center</a>
2023 CDP Climate Change Questionnaire	<a href="#">Question C4.1a</a>	





DATA & FRAMEWORKS

# WEF content index

Theme	Disclosure	2023 location or direct response
<b>Governance pillar</b>		
Governing purpose	The company's stated purpose, as the expression of the means by which a business proposes solutions to economic, environmental and social issues. Corporate purpose should create value for all stakeholders, including shareholders.	<a href="#">Ambitions</a>
Quality of governing body	Composition of the highest governance body and its committees by: competencies relating to economic, environmental and social topics; executive or non-executive; independence; tenure on the governance body; number of each individual's other significant positions and commitments, and the nature of the commitments; gender; membership of under represented social groups; stakeholder representation.	<a href="#">2023 Annual Report</a> <a href="#">ESG management</a>
Stakeholder engagement	A list of the topics that are material to key stakeholders and the company, how the topics were identified and how the stakeholders were engaged.	<a href="#">Materiality</a>
Ethical behaviour; anti-corruption	<ol style="list-style-type: none"> <li>Total percentage of governance body members, employees and business partners who have received training on the organization's anti-corruption policies and procedures, broken down by region.                             <ol style="list-style-type: none"> <li>Total number and nature of incidents of corruption confirmed during the current year, but related to previous years; and</li> <li>Total number and nature of incidents of corruption confirmed during the current year, related to this year.</li> </ol> </li> <li>Discussion of initiatives and stakeholder engagement to improve the broader operating environment and culture, in order to combat corruption.</li> </ol>	<a href="#">Business integrity</a>
Ethical behaviour; protected ethics advice and reporting	<p>A description of internal and external mechanisms for:</p> <ol style="list-style-type: none"> <li>Seeking advice about ethical and lawful behaviour and organizational integrity; and</li> <li>Reporting concerns about unethical or unlawful behaviour and lack of organizational integrity.</li> </ol>	<a href="#">Business integrity</a>
Risk and opportunity oversight	Company risk factor and opportunity disclosures that clearly identify the principal material risks and opportunities facing the company specifically (as opposed to generic sector risks), the company appetite in respect of these risks, how these risks and opportunities have moved over time and the response to those changes. These opportunities and risks should integrate material economic, environmental and social issues, including climate change and data stewardship.	<a href="#">Form 10-K: Part I, Item 1A</a>



Theme	Disclosure	2023 location or direct response
<b>Planet pillar</b>		
Climate change; GHG emissions	For all relevant greenhouse gases (e.g. carbon dioxide, methane, nitrous oxide, F-gases etc.), report in metric tonnes of carbon dioxide equivalent (tCO <sub>2</sub> e) GHG Protocol Scope 1 and Scope 2 emissions. Estimate and report material upstream and downstream (GHG Protocol Scope 3) emissions where appropriate.	<a href="#">Greenhouse gas emissions</a> <a href="#">ESG data center</a>
Climate change; TCFD implementation	Fully implement the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). If necessary, disclose a timeline of at most three years for full implementation. Disclose whether you have set, or have committed to set, GHG emissions targets that are in line with the goals of the Paris Agreement — to limit global warming to well below 2°C above pre-industrial levels and pursue efforts to limit warming to 1.5°C — and to achieve net-zero emissions before 2050.	<a href="#">Ambitions</a> <a href="#">TCFD content index</a>
Nature loss	Report the number and area (in hectares) of sites owned, leased or managed in or adjacent to protected areas and/or key biodiversity areas (KBA).	Trane Technologies is reviewing operational sites and plans to release data in the future. Read more about our biodiversity progress in the <a href="#">Climate change</a> section of our report.
Freshwater availability	Water consumption and withdrawal in water-stressed areas. Report for operations where material: megalitres of water withdrawn, megalitres of water consumed and the percentage of each in regions with high or extremely high baseline water stress, according to WRI Aqueduct water risk atlas tool. Estimate and report the same information for the full value chain (upstream and downstream) where appropriate.	<a href="#">Water</a>
<b>People pillar</b>		
Dignity & equality	Percentage of employees per employee category, by age group, gender and other indicators of diversity (e.g., ethnicity).	<a href="#">Global workforce</a> <a href="#">Diversity &amp; Inclusion</a> <a href="#">ESG data center</a> <a href="#">EEO-1 report</a>
	Ratio of the basic salary and remuneration for each employee category by significant locations of operation for priority areas of equality: women to men, minor to major ethnic groups, and other relevant equality areas.	Proprietary
	1. Ratios of standard entry level wage by gender compared to local minimum wage. 2. Ratio of the annual total compensation of the CEO to the median of the annual total compensation of all its employees, except the CEO.	1. Proprietary 2. <a href="#">2023 Annual Report</a>
	An explanation of the operations and suppliers considered to have significant risk for incidents of child labour, forced or compulsory labour. Such risks could emerge in relation to: a) type of operation (such as manufacturing plant) and type of supplier; and b) countries or geographic areas with operations and suppliers considered at risk.	Proprietary

Theme	Disclosure	2023 location or direct response
Health and well-being	1. The number and rate of fatalities as a result of work-related injury; high-consequence work-related injuries (excluding fatalities); recordable work-related injuries; main types of work-related injury; and the number of hours worked. 2. An explanation of how the organization facilitates workers' access to non-occupational medical and healthcare services, and the scope of access provided for employees and workers.	<a href="#">Occupational health &amp; safety</a> <a href="#">ESG data center</a>
Skills for the future	Average hours of training per person that the organization's employees have undertaken during the reporting period, by gender and employee category (total number of hours of training provided to employees divided by the number of employees). Average training and development expenditure per full time employee (total cost of training provided to employees divided by the number of employees).	<a href="#">Learning &amp; development</a>
<b>Prosperity pillar</b>		
Employment and wealth generation	Total number and rate of new employee hires during the reporting period, by age group, gender, other indicators of diversity and region. Total number and rate of employee turnover during the reporting period, by age group, gender, other indicators of diversity and region.	<a href="#">Global workforce</a> <a href="#">ESG data center</a>
	1. Direct economic value generated and distributed (EVG&D), on an accruals basis, covering the basic components for the organization's global operations, ideally split out by: <ul style="list-style-type: none"><li>▪ Revenues</li><li>▪ Operating costs</li><li>▪ Employee wages and benefits</li><li>▪ Payments to providers of capital</li><li>▪ Payments to government</li><li>▪ Community investment</li></ul>	<a href="#">2023 Annual Report</a>
	2. Financial assistance received from the government: total monetary value of financial assistance received by the organization from any government during the reporting period.	
	Total capital expenditures (CapEx) minus depreciation, supported by narrative to describe the company's investment strategy. Share buybacks plus dividend payments, supported by narrative to describe the company's strategy for returns of capital to shareholders.	<a href="#">Form 10-K, Part II</a>
Innovation of better products and services	Total costs related to research and development.	<a href="#">Technology &amp; innovation</a> <a href="#">ESG data center</a>
Community and social vitality	The total global tax borne by the company, including corporate income taxes, property taxes, non creditable VAT and other sales taxes, employer-paid payroll taxes, and other taxes that constitute costs to the company, by category of taxes.	<a href="#">Form 10-K, Part II</a>





# ESG data center

Purple text references data related to 2030 Sustainability Commitments and other key ESG success metrics.

## Environmental

Greenhouse gas emissions	2019	2020	2021	2022	2023
Scope 1 GHG emissions (metric tons CO <sub>2</sub> e)					
<b>Total Scope 1 GHG emissions</b>	<b>319,240</b>	<b>282,837</b>	<b>266,523</b>	<b>241,788</b>	<b>206,381</b>
Emissions from refrigerant leaks in manufacturing processes and cooling equipment	198,536	171,467	148,345	116,155	87,265
Emissions from fuels used in service vehicles	62,154	58,167	60,651	64,636	69,833
Emissions from fuels used in manufacturing	55,242	50,574	54,854	58,278	46,809
Emissions from fugitive volatile organic compound (VOC) from manufacturing processes	3,308	2,629	2,674	2,718	2,474
Scope 2 GHG emissions (metric tons CO <sub>2</sub> e)					
Total unadjusted market-based Scope 2 GHG emissions	153,611	140,005	138,549	134,664	127,351
<b>Total adjusted market-based Scope 2 GHG emissions</b>	<b>123,500</b>	<b>80,051</b>	<b>66,685</b>	<b>55,535</b>	<b>40,963</b>
Total location-based Scope 2 GHG emissions	160,592	144,543	144,277	127,894	125,851
Scope 1 and 2 GHG emissions (metric tons CO <sub>2</sub> e)					
<b>Total absolute Scope 1 and adjusted market-based Scope 2 GHG emissions</b>	<b>442,740</b>	<b>362,888</b>	<b>333,208</b>	<b>297,323</b>	<b>247,344</b>
<b>Percent reduction in absolute Scope 1 and adjusted market-based Scope 2 GHG emissions from 2019 baseline</b>	<b>-</b>	<b>18%</b>	<b>25%</b>	<b>33%</b>	<b>44%</b>
Total Scope 1 and location-based Scope 2 GHG emissions	479,832	427,380	410,800	369,682	332,232
Scope 1 and 2 carbon intensity performance					
Carbon intensity for Scope 1 and adjusted market-based Scope 2 GHG emissions for the organization (mtCO <sub>2</sub> e/million USD)	33.86	29.14	23.57	18.59	13.99
Reduction of GHG emissions intensity, including adjusted market-based Scope 2 GHG emissions, from a 2019 baseline (metric tons/USD)	-	4.72	10.29	15.27	19.87



<b>Greenhouse gas emissions</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Reduced emission through energy from renewable sources					
<b>Total reduced GHG emissions from renewable energy (metric tons CO<sub>2</sub>e)</b>	<b>30,111</b>	<b>59,954</b>	<b>71,864</b>	<b>79,129</b>	<b>86,389</b>
Reduced GHG emissions from VPPA renewable energy credits (metric tons CO <sub>2</sub> e)	26,568	53,580	48,525	49,810	41,632
Reduced GHG emissions from purchased or supplier-provided RECs (metric tons CO <sub>2</sub> e)	1,244	4,381	21,262	24,930	31,734
Reduced GHG emissions from electricity generated by on-site solar/ photovoltaic systems (metric tons CO <sub>2</sub> e)	2,299	1,992	2,077	4,388	13,023
Reduction in Scope 2 GHG emissions by renewable energy since 2019	20%	43%	52%	59%	68%
<b>Reduction in total Scope 1 and Scope 2 GHG emissions by renewable energy</b>	<b>6%</b>	<b>14%</b>	<b>18%</b>	<b>21%</b>	<b>26%</b>
<b>Scope 1 regional GHG emissions (metric tons CO<sub>2</sub>e)</b>					
North America	247,802	201,687	174,163	182,218	156,835
Latin America	22,064	21,112	46,110	21,280	18,148
Europe, the Middle East, Africa	32,353	45,683	36,154	30,638	25,090
Asia Pacific	17,020	14,355	10,096	7,653	6,309
<b>Scope 2 regional GHG emissions (metric tons CO<sub>2</sub>e)</b>					
North America	77,167	47,302	28,770	21,214	11,204
Latin America	12,529	8,599	10,145	7,782	5,066
Europe, the Middle East, Africa	11,166	4,617	3,898	3,635	2,979
Asia Pacific	22,637	19,534	23,872	22,904	21,714
<b>Scope 3 GHG emissions (metric tons CO<sub>2</sub>e)</b>					
Total Scope 3 GHG emissions	369 million	Note 1	Note 1	308 million	271 million
Product Use (assured)	365 million	331 million	366 million	303 million	266 million
Purchased goods and services	4 million	Note 1	Note 1	5 million	5 million
Upstream and downstream distribution and transportation (estimate)	135,628	136,434	98,245	90,444	128,388
Upstream leased assets (estimate)	67,000	65,613	63,141	50,474	53,774
Business Travel (assured)	30,340	3,788	1,895	6,313	9,958
<b>Other air emissions (metric tons)</b>					
NO <sub>x</sub>	106.50	97.63	103.89	111.04	106.38
SO <sub>x</sub>	6.98	5.77	6.11	7.42	6.51
Volatile Organic Compound (VOC) emissions	275.70	219.10	222.84	226.54	206.14
<b>Biogenic emissions (metric tons CO<sub>2</sub>e)</b>					
Biogenic emissions	0	0	0	35.62	73.31

Note 1: Values for baseline year and prior year calculated to reflect updated estimation approach for emissions from purchased goods and services. 2020 and 2021 values not provided.

<b>Energy</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
<b>Absolute energy use (billion kJ)</b>					
<b>Total energy consumption</b>	<b>3,157</b>	<b>2,951</b>	<b>3,116</b>	<b>3,181</b>	<b>3,032</b>
Indirect (electricity)	1,193	1,126	1,173	1,132	1,097
Direct (fuel use)	1,965	1,825	1,943	2,050	1,935
Natural gas	832	803	864	842	738
Gasoline	807	739	784	853	890
Diesel	231	205	206	255	214
Propane	62	48	54	60	58
Solar electricity generated and used	9	9	9	12	13
Fuel oil	6	14	13	13	6
Vegetable oil	0	0	0	1	1
Aviation fuel	18	7	12	15	15
Biopropane	0	0	0	0	1
Normalized energy use (billion kJ/million USD)	0.2415	0.2369	0.2205	0.1989	0.1715
<b>Energy consumption and sales (billion kJ)</b>					
Total electricity consumption	1,202	1,134	1,183	1,144	1,110
Total heating consumption	837	817	878	854	744
Total cooling consumption	0	0	0	0	0
Total steam consumption	0	0	0	0	0
Total electricity sold	1	1	1	2	2
Total heating sold	0	0	0	0	0
Total cooling sold	0	0	0	0	0
Total steam sold	0	0	0	0	0
<b>Reduction in energy consumption achieved as a direct result of conservation and efficiency initiatives</b>	<b>2</b>	<b>25</b>	<b>23</b>	<b>20</b>	<b>37</b>
<b>Renewable energy data</b>					
Renewable energy generated (billion kJ)	23	22	23	28	28
Renewable energy generated and sold to grid (billion kJ)	1	1	1	2	2
Renewable energy generated and used (billion kJ)	9	9	9	12	13
Renewable energy purchased (billion kJ)	235	451	574	641	760
Percentage grid electricity	80%	60%	51%	44%	32%
<b>Percentage renewable electricity</b>	<b>20%</b>	<b>40%</b>	<b>49%</b>	<b>56%</b>	<b>68%</b>
Number of RE100-compliant sites	0	14	20	19	26



Renewable energy projects	Location	Type	2021 production	2022 production	2023 production	REC treatment
Trenton Solar Project	Trenton, NJ, USA	On-Site Solar PV	1,994 MWh	2,149 MWh	2,172 MWh	Utility owns RECs <sup>1)</sup>
Columbia Solar Project	Columbia, SC, USA	On-Site Solar PV	1,575 MWh	1,462 MWh	1,470 MWh	Utility owns RECs <sup>1)</sup>
Galway Solar Project	Galway, Ireland	On-Site Solar Generation	-	-	1 MWh	N/A — No RECs: December 2023 kick off of on-site solar generation
Monterrey Solar Project and Purchased Zero Carbon Electricity	Monterrey, Mexico	On-Site Solar PV	-	-	110 MWh	N/A — No RECs: Portion of purchased electricity is 100% renewable
Taicang Solar Project	Taicang, China	On-Site Solar PV	2,622 MWh	3,599 MWh	6,557 MWh	N/A — No RECs: Company owns renewable energy attributes from 100% of generation
Zhongshan Solar Project and Purchased Zero Carbon Electricity	Zhongshan, China	On-Site Solar PV		968 MWh	1,318 MWh	N/A — No RECs: Company owns renewable energy attributes from 100% of generation
Seymour Hill Wind Farm VPPA	Northern Texas, USA	Wind VPPA	105,892 MWh	103,283 MWh	101,053 MWh	Company owns and retires RECs
Use of Zero Carbon Electricity	Bari, Italy; Galway and Shannon, Ireland; Essen, Germany	Direct supply of 100% renewable electricity by local power provider	5,086 MWh	17,062 MWh	24,836 MWh	N/A — no RECs: 100% renewable energy supplied by power provider
Vendor Provides RECs or GOs	Barcelona, Spain; Hastings, NE, USA; Prague and Kolin, Czech Republic; Lynn Haven, FL, Clarksville, TN, Tyler, TX, USA	Power company purchases and retires RECs/ Guarantees of Origin (GO) for a portion or 100% of Trane Technologies electricity	44,939 MWh	54,130 MWh	81,680 MWh	Power provider retires RECs/GOs on behalf of Trane Technologies

<sup>1)</sup> The RECs from this project are owned by the utilities. We purchase replacement RECs, equal to the amount of solar generated by the PV system, from other renewable energy facilities in the U.S.

Waste	2019	2020	2021	2022	2023
<b>Waste generated (metric tons)</b>					
Total waste generated	34,968	33,045	34,635	35,457	34,531
Total hazardous waste generated	1,088	943	1,083	1,086	971
Total non-hazardous waste generated	33,880	32,101	33,553	34,370	33,559
<b>Total solid waste generated</b>	<b>10,662</b>	<b>8,886</b>	<b>6,926</b>	<b>6,280</b>	<b>4,654</b>
<b>Reduction in solid waste generated from a 2019 baseline</b>	<b>-</b>	<b>17%</b>	<b>35%</b>	<b>41%</b>	<b>56%</b>
Normalized hazardous waste (metric tons/million USD)	0.08	0.08	0.08	0.07	0.05
Normalized non-hazardous waste (metric tons/million USD)	2.59	2.58	2.37	2.15	1.90
<b>Number of sites that achieved zero waste to landfill at 90% diversion by year end</b>	<b>27</b>	<b>29</b>	<b>32</b>	<b>36</b>	<b>39</b>
<b>Waste disposal (metric tons)</b>					
Non-hazardous waste to landfill	5,564	6,103	4,230	1,806	1,874
Non-hazardous waste recycled	24,306	24,159	27,710	29,177	29,992
Normalized non-hazardous waste to landfill (metric tons/million USD)	0.43	0.49	0.30	0.11	0.11
Normalized non-hazardous waste recycled (metric tons/million USD)	1.86	1.94	1.96	1.82	1.70
<b>Packaging data</b>					
Emissions avoided from returnable packaging projects (metric tons CO <sub>2</sub> e)	140	227	416	276	746
Solid waste avoided from returnable packaging projects (metric tons)	877	1,006	720	504	1,616
<b>Water</b>					
<b>2019 2020 2021 2022 2023</b>					
Water use (million cubic meters)	2.95	2.79	2.91	2.47	1.97
Normalized water use (cubic meters/million USD)	226	224	206	154	111
<b>Percent of total water use at sites in areas of high to extremely high water stress</b>	<b>11%</b>	<b>9%</b>	<b>9%</b>	<b>10%</b>	<b>12%</b>
Water used in water stressed locations (cubic meters)	310,836	239,109	254,763	246,056	228,613
<b>Reduction in water use in water-stressed regions from 2019 baseline</b>	<b>-</b>	<b>23%</b>	<b>18%</b>	<b>21%</b>	<b>26%</b>
<b>Trane Technologies sites in areas of high to extremely high water-stress</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>17</b>
Wastewater permit exceedances	2	1	3	1	0



# Social

Purple text references data related to 2030 Sustainability Commitments and other key ESG success metrics.

Global workforce						
Location (2023)	Employee type	Women		Men		Grand total
Asia Pacific	Hourly	7.3%	74	92.7%	946	1,020
	Salaried	25.4%	1,379	74.6%	4,059	5,438
EMEA	Hourly	6.3%	170	93.7%	2,539	2,709
	Salaried	30.5%	789	69.5%	1,795	2,584
Americas	Hourly	25.1%	3,945	74.9%	11,763	15,708
	Salaried	31.6%	4,115	68.4%	8,898	13,013
<b>Total</b>	<b>Hourly</b>	<b>21.6%</b>	<b>4,189</b>	<b>78.4%</b>	<b>15,248</b>	<b>19,437</b>
	<b>Salaried</b>	<b>29.9%</b>	<b>6,283</b>	<b>70.1%</b>	<b>14,752</b>	<b>21,035</b>

New employee hires	2019	2020	2021	2022	2023
Total new hires	-	3,837	7,321	7,432	8,474
Women (global)	-	31.1%	29.2%	30.2%	30.9%
Salaried	-	34.5%	35.0%	37.6%	36.0%
Hourly	-	29.6%	25.6%	26.9%	28.3%
Management	-	31.5%	32.6%	33.3%	31.5%
Leadership	-	26.3%	52.0%	45.5%	37.5%
Racially & ethnically diverse overall (U.S.) <sup>1</sup>	-	47.9%	44.2%	50.5%	53.0%
Salaried	-	23.5%	25.5%	28.5%	28.5%
Hourly	-	57.8%	54.1%	59.1%	62.7%

<sup>1</sup> Classified into five minimum categories by the US Census: White, Black or African American, American Indian or Alaska Native, Asian and Native Hawaiian or Other Pacific Islander.

Gender diversity data	2019		2020		2021		2022		2023	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Governance body (Executive Leadership Team)	33.3%	66.7%	12.5%	87.5%	13.3%	86.7%	18.8%	81.2%	20.0%	80.0%
<b>Leadership positions (director level, vice president and above)</b>	<b>23.1%</b>	<b>76.9%</b>	<b>21.7%</b>	<b>78.3%</b>	<b>24.6%</b>	<b>75.4%</b>	<b>26.2%</b>	<b>73.8%</b>	<b>26.5%</b>	<b>73.5%</b>
All management positions (all levels of management)	-	-	21.8%	78.2%	23.1%	76.9%	24.2%	75.8%	25.2%	74.8%
Workforce	24.3%	75.7%	25.3%	74.7%	25.5%	74.5%	25.7%	74.3%	25.9%	74.1%
Members of our Board of Directors <sup>1</sup>	-	-	5	7	5	6	5	7	6	6

<sup>1</sup> Members of our Board of Directors as of December 31 of the reported year.

Racial & ethnic diversity data	2019	2020	2021	2022	2023
<b>Racially &amp; ethnically diverse<sup>1</sup> (U.S.) overall</b>	<b>-</b>	<b>35.5%</b>	<b>36.4%</b>	<b>37.4%</b>	<b>37.2%</b>
Salaried	-	17.5%	18.4%	19.6%	20.6%
Hourly	-	50.5%	51.6%	52.6%	51.9%
Promotion rates (overall)	-	4.4%	6.5%	6.3%	6.1%
Women	-	5.8%	7.7%	7.9%	7.5%
Men	-	3.9%	6.1%	5.8%	5.6%
<b>Racially &amp; ethnically diverse (U.S.)</b>	<b>-</b>	<b>5.7%</b>	<b>7.0%</b>	<b>7.1%</b>	<b>7.1%</b>
White	-	4.8%	7.5%	7.5%	6.8%

<sup>1</sup> Classified into five minimum categories by the US Census: White, Black or African American, American Indian or Alaska Native, Asian and Native Hawaiian or Other Pacific Islander.

Age groups (2023)	Under 30 years old	30-50 years old	50+ years old
Percentage of individuals within the organization's leadership positions	0.0%	45.3%	54.7%
Percentage of individuals within the organization's management positions	2.5%	56.3%	41.2%
Percentage of employees	16.6%	54.6%	28.8%

Global workforce data	2019	2020	2021	2022	2023
Full-time employees	36,630	34,646	36,434	37,669	40,472
Contractors	3,164	3,108	3,123	4,711	2,368
Key talent retention rate	96.1%	97.2%	94.6%	93.1%	96.4%

Company culture	2019	2020	2021	2022	2023
<b>Employee engagement survey results</b>					
Diversity & Inclusion Index	-	76	76	77	78
Sustainability Index	-	79	79	80	80
<b>Average employee engagement survey score</b>	<b>-</b>	<b>80</b>	<b>79</b>	<b>80</b>	<b>80</b>
Participation rate	-	90%	89%	88%	87%



U.S. parental leave data	2019		2020		2021		2022		2023	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Employees who were eligible for parental leave	4,709	13,725	4,624	11,934	4,978	12,841	5,251	13,500	5,863	14,813
Employees who took parental leave	130	312	106	253	119	263	100	260	121	304
Employees who returned to work <sup>(1)</sup>	124	306	102	247	112	258	97	255	94	248
Return to work rate	95.0%	98.0%	96.2%	97.6%	94.1%	98.1%	97.0%	98.1%	96.7%	99.0%
Employees who returned to work and were still employed after 12 months <sup>(2)</sup>	85.0%	90.5%	86.9%	89.9%	78.3%	84.2%	78.2%	85.6%	87.6%	85.4%

1 Completed benefits in 2021 and were still employed 30 days after completing benefits.

2 Completed benefits in 2020 and were still employed 12 months after completing benefits.

Corporate citizenship	2019	2020	2021	2022	2023
<b>Employee &amp; community engagement data</b>					
Percent of employees globally who volunteered in community or sustainability initiatives	36%	49%	31%	35%	26%
Volunteer participants	17,044	15,811	10,748	13,571	10,402
<b>Hours volunteered</b>	<b>31,682</b>	<b>20,559</b>	<b>30,041</b>	<b>62,274</b>	<b>92,517</b>
<b>Global contributions</b>					
<b>Total philanthropic giving</b>	<b>\$9,653,427</b>	<b>\$10,933,910</b>	<b>\$11,472,236</b>	<b>\$15,892,064</b>	<b>\$18,888,100</b>
Value of employee volunteering time during paid working hours	\$805,673	\$548,284	\$784,371	\$1,680,782	\$2,508,135
Charitable fundraising	\$1,007,855	\$3,170,136	\$1,692,459	\$1,544,622	\$1,325,627
Charitable contributions	\$1,818,910	\$1,048,499	\$2,235,053	\$2,944,494	\$4,283,458
In-kind giving	\$415,502	\$969,319	\$1,442,378	\$3,767,773	\$4,781,849
Administrative overheads	\$150,407	\$88,893	\$103,709	\$182,924	\$178,946
Trane Technologies Foundation donations to community partners	\$5,455,080	\$5,108,779	\$5,214,266	\$5,771,469	\$5,810,085
<b>Percent increase year over year in philanthropic giving</b>	<b>-</b>	<b>13%</b>	<b>5%</b>	<b>39%</b>	<b>19%</b>

Learning & development	2019	2020	2021	2022	2023
<b>Average number of learning &amp; development hours</b>					
All employees	80	140	110	102	115
Salaried employees	90	-	179	181	150
Hourly employees	70	-	3.5	3.4	8.0

Occupational health & safety data	2019	2020	2021	2022	2023
<b>Total recordable incident rate (per 200,000 hours worked)<sup>(1)</sup></b>	<b>0.83</b>	<b>0.77</b>	<b>0.94</b>	<b>0.81</b>	<b>0.83</b>
<b>Lost time incident rate (per 200,000 hours worked)<sup>(2)</sup></b>	<b>0.10</b>	<b>0.08</b>	<b>0.11</b>	<b>0.14</b>	<b>0.10</b>
Number of lost time incidents per million hours worked	0.50	0.40	0.56	0.69	0.52
Employee lost time frequency rate (per million hours worked)	0.49	0.41	0.52	0.65	0.55
Contractor lost time frequency rate (per million hours worked)	0.58	0.24	1.17	1.18	0.17
Employee occupational illness frequency rate (per million hours worked)	0	0	0	0	0
<b>Work-related fatalities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total hours worked (among employees and supervised employee contractors)	78,533,516	73,055,721	76,628,585	81,632,243	84,267,679

1 (recordable injuries x 200,000) / total hours worked by employees

2 (recordable injuries resulting in lost work time x 200,000) / total hours worked by employees

Human rights data	2019	2020	2021	2022	2023
Salaried employees trained on anti-harassment (U.S.)	100%	100%	100%	100%	100%
Employees able to access anti-harassment policy	100%	100%	100%	100%	100%
Required salaried employees trained on anti-corruption	100%	100%	100%	100%	100%

Supplier diversity data	2019	2020	2021	2022	2023
Number of diverse suppliers added during the year	-	103	71	113	91
<b>Diverse-owned business spend</b>	<b>\$532.0 million</b>	<b>\$380.4 million</b>	<b>\$435.1 million</b>	<b>\$534.8<sup>(1)</sup> million</b>	<b>\$525.1 million</b>
Percent of spend with diverse-owned businesses	-	6.0%	6.8%	6.6% <sup>(1)</sup>	6.3%
Percent increase in diverse-owned business spend	-	11.1%	14.3%	22.9% <sup>(1)</sup>	-1.8%
Diverse-owned business spend since inception of program in 2013	>\$2.6 billion	>\$3 billion	>\$3.4 billion	>\$3.9 billion <sup>(1)</sup>	\$4.4 billion
Percent of spend with women-owned businesses	-	3.8%	4.1%	4.2% <sup>(1)</sup>	3.9%
Percent increase in women-owned business spend	-	18.8%	15.4%	18.2% <sup>(1)</sup>	-5.8%

1 Data has been updated to reflect refinements in data collection process.



## Governance

Purple text references data related to 2030 Sustainability Commitments and other key ESG success metrics.

Lobbying expenditures	2019	2020	2021	2022	2023
Total monetary value of Trane Technologies' financial and in-kind lobbying contributions made directly and indirectly by the organization.	\$680,370	\$632,680	\$804,508	\$920,975	\$988,445
Employee contributions to Trane Technologies' political action committee (U.S. Only)	\$27,658	\$22,056	\$15,284	\$12,391	\$13,003

## Products & innovation

Circularity: Product life cycle & materials	2019	2020	2021	2022	2023
<b>Product life cycle data</b>					
New product development projects generated or improved by the Product Development Process	-	194	181	212	230
Avoided emissions from refrigerant reclamation program (metric tons CO <sub>2</sub> e)	-	177,350	197,054	206,164	213,918
<b>Materials data</b>					
<b>Percentage of recycled input materials used to manufacture the organization's primary products and services</b>	-	-	<b>44%</b>	<b>47%</b>	<b>45%</b>
Revenue from remanufactured products and remanufacturing services	-	-	\$100 million	\$99 million	\$104 million

See packaging data in [Waste](#) section.

Energy-efficient & low-emission solutions	2019	2020	2021	2022	2023
<b>Clean revenue percentage<sup>(1)</sup></b>	<b>25%</b>	<b>30%</b>	<b>35%</b>	<b>38%</b>	<b>41%</b>
Percentage of eligible products, by revenue, that meet ENERGY STAR® criteria	35% of shipment	53% of residential revenue	41% of revenue from Residential Furnaces and Residential & Light Commercial Central Air-conditioners and Heat Pumps	32% of revenue is from products that can meet the efficiency metrics specified by ENERGY STAR® for Residential Furnaces and Residential & Light Commercial Central Air-conditioners and Heat Pumps.	17% of revenue is from products that can meet the efficiency metrics specified by ENERGY STAR® for Residential Furnaces and Residential & Light Commercial Central Air-conditioners and Heat Pumps.

<sup>1</sup> This is an estimation of the percentage of revenue Trane Technologies defines as clean revenue.

Energy-efficient & low-emission solutions	2019	2020	2021	2022	2023
Revenue from renewable energy-related and energy efficiency-related products	Approximately 25% of products and revenue contribute to clean energy transition	Approximately 30% of products and revenue contribute to clean energy transition	Approximately 35% revenue from products and services that contribute to the clean energy transition	Approximately 38% revenue from products and services that contribute to the clean energy transition	Approximately 41% revenue from products and services that contribute to the clean energy transition
Projects meeting or exceeding quality, design and cost goals	-	85%	>85%	>80%	78%

Technology & innovation	2019	2020	2021	2022	2023
<b>Average revenue from innovation</b>	<b>18.6%</b>	<b>20.5%</b>	<b>20.5%</b>	<b>21.2%</b>	<b>26.9%</b>
<b>Research and development expense<sup>(1)</sup></b>	<b>\$236 million</b>	<b>\$165 million</b>	<b>\$193 million</b>	<b>\$211 million</b>	<b>\$252 million</b>
Business development spend	-	-	>\$300 million	>\$300 million	>\$900 million
Percent of business development spend focused on sustainability-related objectives	-	-	>90%	>90%	>90%
New products and services launched	-	54	62	69	98
New patent filings	-	-	>145	>145	>125

<sup>1</sup> As reported in accordance with U.S. generally accepted accounting principles (GAAP), excludes capitalized research and development costs.

Supply chain transparency & performance	2019	2020	2021	2022	2023
<b>Supplier data</b>					
Number of Trane Technologies suppliers across the globe	-	15,467	25,000	27,539	27,781
Combined annual spend for direct and indirect commodities	\$10.2 billion	\$8.3 billion	\$8.6 billion	\$10.0 billion	\$9.4 billion
Direct spend with preferred suppliers	42%	35%	35%	29%	17%
Preferred suppliers enrolled in ESG reporting platform	-	-	100%	100%	100%
<b>Supplier risk assessment data</b>					
Total number of suppliers audited for sustainability and business risks through On-Site Assessment (OSA) audits	-	1,500	1,600	968	675 <sup>(1)</sup>
Direct material spend subject to On-Site Assessments	86%	69% <sup>(2)</sup>	93%	95%	73% <sup>(1)</sup>
Direct material spend assessed on a quarterly basis for risk	100%	100%	100%	100%	100%

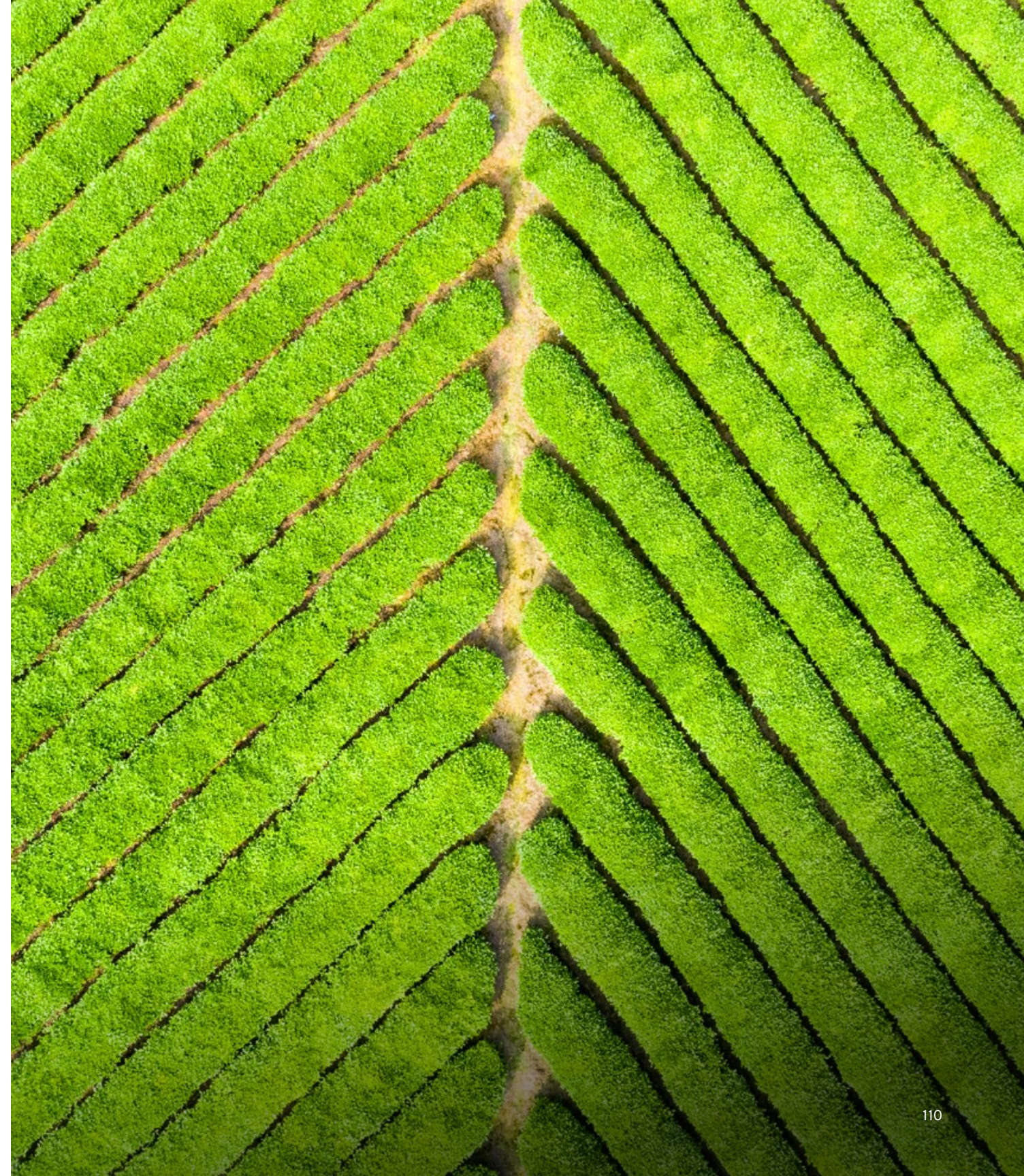
<sup>1</sup> The reduction in On-Site Assessments reflects the transition to a 5-year versus a 3-year renewal standard.

<sup>2</sup> Due to COVID, we were unable to go on-site to conduct many of the planned OSAs.



Purple text references data related to 2030 Sustainability Commitments and other key ESG success metrics.

<b>Supply chain transparency &amp; performance</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
Percentage of new suppliers that were screened using environmental and social criteria	-	-	100%	100%	100%
Number of suppliers assessed for environmental and social impacts	501	321	209	299	225
Number of suppliers identified as having significant actual and potential negative environmental or social impacts	0	0	0	0	0
Significant actual and potential negative environmental or social impacts identified in the supply chain	-	0	0	0	0
Percentage of suppliers identified as having significant actual and potential negative environmental or social impacts with which improvements were agreed upon as a result of assessment	-	0%	0%	0%	0%
Percentage of suppliers identified as having significant actual and potential negative environmental or social impacts with which relationships were terminated as a result of assessment	-	0%	0%	0%	0%
<b>Logistics data</b>					
Reduction in empty truck miles driven through Dedicated Carrier Program	-	-	-	16%	87%
Emissions avoided through Dedicated Carrier Program (metric tons CO <sub>2</sub> e)	-	-	-	1,895	2,553





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