

C0. Introduction

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C0.1

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## (C0.1) Give a general description and introduction to your organization.

Trane Technologies is a global climate innovator that brings efficient and sustainable climate solutions to buildings, homes and transportation through our strategic brands Trane® and Thermo King® and an innovative, environmentally responsible portfolio of products and services, and connected intelligent controls. In 2022, we generated \$15.992B in revenue primarily through the design, manufacture, sale and service of a diverse portfolio of innovative climate control products and services for Heating, Ventilation and Air Conditioning (HVAC), transport refrigeration and custom refrigeration solutions. We accomplish this through relentless investment in customer-driven product and service innovation to drive market outgrowth and generate powerful free cash flow. Growth is also a result of increasing revenues from services, parts, controls, and rentals and we continue to focus on margin expansion through pricing and improved productivity. Successful execution of these focus areas will allow us to maintain and grow our position as a global climate innovator creating comfortable, sustainable, and efficient environments.

Since 2009, we have focused on long-term sustainability goals to advance our environmental performance. In 2019 we announced our 2030 commitments which include:

The Gigaton Challenge, our pledge to reduce customer carbon emissions by one billion metric tons. This will require reducing emissions from products and services by 55% per cooling ton by 2030, a target that has been validated by the Science Based Targets initiative (SBTi). The Gigaton Challenge will be accomplished by:

- Accelerating clean technologies that heat and cool buildings in sustainable ways
- Increasing energy efficiency in buildings, homes, and transport environments
- Reducing food loss in the global cold chain
- Transitioning out of high-global warming potential refrigerants by 2030 (ahead of regulation)
- Designing systems for circularity
- Increasing access to cooling and fresh food

Our Leading by Example commitment represents our operational goals:

- Achieving carbon neutral operations
- Delivering zero waste to landfills
- Becoming net positive with water use in water-stressed regions
- Reducing absolute energy consumption by 10%, compared to the 2019 baseline

Our Opportunity for All commitment focuses on expanding workforce diversity and creating pathways to green and STEM (Science, Technology, Engineering, and Math) careers. We will:

- Achieve workforce diversity reflective of our communities
- Achieve gender parity (50% women) in leadership roles
- Maintain world-class safety metrics
- Provide market-competitive wages, benefits, and leading wellness offerings for workforce
- Invest \$100 million in building sustainable futures for under-represented students
- Dedicate 500,000 employee volunteer hours in our communities

We also have pledged to achieve net-zero carbon emissions by 2050. In 2021, we submitted our net-zero targets to the Science Based Targets Initiative (SBTi) and received approval for these Scope 1, 2, and 3 targets in 2022.

Each year since 2008 we (as Trane Inc.) have responded affirmatively to CDP, formerly Carbon Disclosure Project, Investor Questionnaire. In 2022, we were honored to be recognized by a variety of highly esteemed organizations. Most notably: • Listed on the 2022 Dow Jones Sustainability World Index and North America Index • listed as a constituent of the FTSE4Good Index Series.

## C0.2

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**(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.**

**Reporting year**

**Start date**

January 1 2022

**End date**

December 31 2022

**Indicate if you are providing emissions data for past reporting years**

No

**Select the number of past reporting years you will be providing Scope 1 emissions data for**

<Not Applicable>

**Select the number of past reporting years you will be providing Scope 2 emissions data for**

<Not Applicable>

**Select the number of past reporting years you will be providing Scope 3 emissions data for**

<Not Applicable>

**C0.3**

**(C0.3) Select the countries/areas in which you operate.**

- Brazil
- Canada
- China
- Czechia
- France
- Germany
- Ireland
- Italy
- Mexico
- Puerto Rico
- Saudi Arabia
- Spain
- Thailand
- United Kingdom of Great Britain and Northern Ireland
- United States of America

**C0.4**

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

**C0.5**

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.**

Financial control

**C0.8**

**(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	IE00BK9ZQ967
Yes, a Ticker symbol	TT

**C1. Governance**

**C1.1**

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	Sustainability and climate change risks are a formal responsibility of our Board of Directors' Sustainability, Corporate Governance and Nominating Committee. The Committee has oversight for the strategic direction for Trane Technologies' sustainability approach and is responsible for overseeing our carbon footprint and environmental health and safety performance. The committee meets quarterly to evaluate the company's sustainability performance and is informed regularly by the company's EVP and Chief Technology and Sustainability Officer (CTO). The CTO has the role of providing these and other updates to this Committee on a regular basis. The use of our products is our single largest source of greenhouse gas emissions, consequently our innovative solutions for buildings and transportation markets have the potential for greatest impact on climate change. Thus both Innovation and Trane Technologies' sustainability office report directly to the Chief Technology and Sustainability Officer. Example: In 2020, our Board of Directors voted to have all managers compensation tied to Environmental, Social and Governance (ESG), specifically to Scope 1 and 2 greenhouse gas (GHG) reduction as well as Scope 3 product use GHG emission reduction.
Chief Executive Officer (CEO)	Our strategy for addressing climate-related risks is endorsed by our Chair and CEO. - The CEO is Chair of the Board of Directors. The Board of Directors Human Resources and Compensation Committee reviews and approves the goals and objectives relevant to the compensation of the CEO, evaluates the CEO's performance against those goals and objectives and sets the CEO's compensation level based on this evaluation. - Greenhouse Gas reduction of our products is a CEO level performance metric, measured quarterly and annually and reviewed by the Compensation Committee annually.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Overseeing and guiding employee incentives Reviewing and guiding strategy Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	<Not Applicable>	- The Sustainability, Corporate Governance and Nominating Committee oversees risks associated with sustainability; Climate change is integrated into our enterprise risk management process - Performance against our 2030 Sustainability Commitments and corporate strategy is reviewed in every Board meeting (6 times per year) as part of our strategy development and reporting of progress. -Oversight of 1.5 degree C aligned climate transition plan - GHG reduction of our products is a CEO level performance metric, measured quarterly and annually.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	The Sustainability, Corporate Governance and Nominating Committee of our Board of Directors considers the skills, expertise and background of our board members and potential board members and looks for skills, expertise and background that complement the existing Board and ensures that its members are of sufficiently diverse and independent backgrounds recognizing that the Company's businesses and operations are diverse and global in nature. Our annual skills matrix is disclosed in our proxy statement that assesses ESG / Sustainability as one of those skills and note the multiple directors who have that background / knowledge in sustainability as well as other skills and experience. For example, Dr. Jared Cohon, who served as Carnegie Mellon University's (CMU) former president and professor of Civil and Environmental Engineering & Engineering and Public Policy, has been a devoted catalyst for CMU's sustainability research, served on our Board of Directors for 24 years and in 2022 led our Technology & Innovation Committee.	<Not Applicable>	<Not Applicable>

C1.2

**(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.**

**Position or committee**

Chief Executive Officer (CEO)

**Climate-related responsibilities of this position**

- Providing climate-related employee incentives
- Implementing a climate transition plan
- Integrating climate-related issues into the strategy
- Setting climate-related corporate targets
- Monitoring progress against climate-related corporate targets
- Assessing climate-related risks and opportunities
- Managing climate-related risks and opportunities

**Coverage of responsibilities**

<Not Applicable>

**Reporting line**

Reports to the board directly

**Frequency of reporting to the board on climate-related issues via this reporting line**

More frequently than quarterly

**Please explain**

(i) The Chair and CEO is the highest management-level position with responsibility for climate-related issues.

Performance against our 2030 Sustainability Commitments and corporate strategy is reviewed in every Board meeting (6 times per year) as part of our strategy development and reporting of progress.

(ii) Trane Technologies' Sustainability Office is managed by the CTO, a direct report to the Chair and CEO

(iii) The Sustainability Office works with business leadership teams to accelerate sustainable innovation and technology-led growth strategies and promote an innovation-centric mindset for the organization. The CTO leads the enterprise strategy organization and oversees the full spectrum of innovation, technology and growth initiatives within the Company, including advanced technologies, product, system and solution design, engineering, and product, service and sales commercialization. The CTO leads Trane Technologies' enterprise sustainability work (the VP of Sustainability reports to the Office of the CTO) and serves on various boards and advisory councils, including our External Sustainability Advisory Council, an advisory group comprised of global thought leaders in infrastructure, energy policy and technology. Accountability for best practices is governed by our Internal Sustainability Strategy Council, of which our CTO is the executive sponsor. The CTO also previously served on the board of The Alliance to Save Energy; Chair of the Governance Committee and past Chair for the Board of Trustees for Discovery Place Science & Technology Center; member of the Board of Trustees for Lehigh University.

(iv) Product GHG is a metric on the CTO's goals, monitored quarterly and annually. The External Sustainability Advisory Council (of which our CTO is a member) meets three times a year to review progress and advise on strategic direction. The Internal Sustainability Strategy Council (of which our CTO is the executive sponsor) meets quarterly to review progress against all sustainability targets, including greenhouse gas emissions of our operations and products. This Council has accountability for sustainability best practices.

**C1.3**

**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Trane Technologies provides incentives for the management of climate-related issues.

**C1.3a**

**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).**

**Entitled to incentive**

Chief Executive Officer (CEO)

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

**Performance indicator(s)**

- Achievement of climate transition plan KPI
- Progress towards a climate-related target
- Reduction in absolute emissions
- Reduction in emissions intensity

**Incentive plan(s) this incentive is linked to**

Short-Term Incentive Plan

**Further details of incentive(s)**

To more closely align the annual short-term incentive compensation of our leaders to the value that we, as a Company, place on environmental sustainability and employee diversity and inclusion, we utilize an ESG modifier as a component of Trane Technologies' annual incentive program (AIM). This strategic modifier may adjust AIM payout amounts upward or downward by up to 20% based on performance against four equally weighted environmental sustainability and diversity and inclusion objectives: internal greenhouse gas reduction, external carbon emissions reduction, increase in gender representation in leadership and increase in racial/ethnic diversity representation in the U.S., in conjunction with the Committee's holistic review of the Company's key accomplishments and actions taken during the year to advance our ESG performance and progress towards our 2030 sustainability commitments.

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

The objectives of the executive compensation program are to utilize ESG-focused metrics to reward both financial and ESG performance. The executive compensation

program:

- 1) aligns all entitled individuals' goals with those of the company
- 2) incentivizes higher engagement
- 3) encourages greater scrutiny/monitoring of progress and active management
- 4) provides an opportunity for employee recognition

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**Entitled to incentive**

Management group

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary

**Performance indicator(s)**

Progress towards a climate-related target  
Reduction in absolute emissions  
Reduction in emissions intensity

**Incentive plan(s) this incentive is linked to**

Short-Term Incentive Plan

**Further details of incentive(s)**

To more closely align the annual short-term incentive compensation of our leaders to the value that we, as a Company, place on environmental sustainability and employee diversity and inclusion, we utilize an ESG modifier as a component of Trane Technologies' annual incentive program. This strategic modifier may adjust AIM payout amounts upward or downward by up to 20% based on performance against four equally weighted environmental sustainability and diversity and inclusion objectives: internal greenhouse gas reduction, external carbon emissions reduction, increase in gender representation in leadership and increase in racial/ethnic diversity representation in the U.S., in conjunction with the Committee's holistic review of the Company's key accomplishments and actions taken during the year to advance our ESG performance and progress towards our 2030 sustainability commitments.

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

The objectives of the executive compensation program are to utilize ESG-focused metrics to reward both financial and ESG performance. The executive compensation program:

- 1) aligns all entitled individuals' goals with those of the company
- 2) incentivizes higher engagement
- 3) encourages greater scrutiny/monitoring of progress and active management
- 4) provides an opportunity for employee recognition

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**Entitled to incentive**

All employees

**Type of incentive**

Monetary reward

**Incentive(s)**

Promotion  
Salary increase

**Performance indicator(s)**

Progress towards a climate-related target  
Implementation of an emissions reduction initiative  
Reduction in absolute emissions  
Reduction in emissions intensity

**Incentive plan(s) this incentive is linked to**

Not part of an existing incentive plan

**Further details of incentive(s)**

All employees are required to have a sustainability objective as a part of their performance management plan. Objective tracking and achievement are needed in order to evaluate performance and is used for merit increases and promotions.

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

This incentive helps to build awareness and emphasize the importance of sustainability to our culture as it is applied to all employees at the company regardless of function, band level, or tenure.

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## C2. Risks and opportunities

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### C2.1

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**(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?**

Yes

#### C2.1a

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**(C2.1a) How does your organization define short-, medium- and long-term time horizons?**

	From (years)	To (years)	Comment
Short-term	1	3	
Medium-term	3	10	
Long-term	10	30	

**C2.1b**

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**(C2.1b) How does your organization define substantive financial or strategic impact on your business?**

We use a risk rating framework which is aligned to our overall risk assessment criteria we use for audit and compliance issues that we escalate to senior leadership. There are four issue categories within the framework: financial issues, operational issues, compliance issues, and IT issues. For example, Financial Issues are categorized as follows:

High – represents (i) a reasonable possibility of potential misstatement of our financial statements and/or disclosures of greater than \$3M for the P&L and greater than \$5M for the Balance Sheet, (ii) any matter of fraud committed by any member of senior management or any employee who plays a significant role in the financial reporting process, (iii) a significant deviation from our technical accounting and/or internal control policies, or (iv) any other matter deemed to be qualitatively significant to our system of internal control over financial reporting.

Medium – represents (i) a reasonable possibility of potential misstatement of our financial statements and/or disclosures of greater than \$500k and less than \$3M for the P&L and greater than \$1M and less than \$5M for the Balance Sheet, (ii) a deviation from our technical accounting and/or internal control policies, or (iii) key controls are not operating as designed or do not exist, but mitigating controls exist and are operating effectively.

Low - represents (i) a reasonable possibility of potential misstatement of our financial statements and/or disclosures of less than \$500k for the P&L and less than \$1M or the Balance Sheet, (ii) a deviation from our technical accounting and/or internal control policies, or (iii) controls are not operating as designed or do not exist, but mitigating controls exist and are operating effectively.

We escalate issues to the Board when the significance of an issue, or combination of issues, in internal control over financial reporting is deemed to merit the attention by those responsible for the oversight of our financial reporting or an issue, or combination of issues, in internal control over financial reporting represents a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

**C2.2**

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## (C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

### Value chain stage(s) covered

Direct operations  
Upstream  
Downstream

### Risk management process

Integrated into multi-disciplinary company-wide risk management process

### Frequency of assessment

More than once a year

### Time horizon(s) covered

Short-term  
Medium-term  
Long-term

### Description of process

Trane Technologies Enterprise Risk Intelligence Committee (ERI) integrates climate related risk into its risk intelligence process and is a key part of our ESG oversight and management. Our ERI team works closely with our enterprise leadership team throughout the year to evaluate, manage, and plan risk management for the businesses upstream, downstream, and direct operations. We define our value chain stages through the guidance of the GHG Protocol. The Board of Directors' Sustainability, Corporate Governance, and Nominating Committee oversees the Company's sustainability efforts, including the development and implementation of policies relating to ESG issues. Members of this Committee monitor the Company's performance against its sustainability and ESG objectives, including the risks of climate change. The Technology and Innovation Committee within the Board of Directors also considers climate risk as they propose strategies for innovative solutions to address climate change, GHG emissions, and the need for products built with circularity and energy efficiency in the forefront.

Our strategy to identify, assess, and manage climate risk takes place within our ESG management and oversight process.

**IDENTIFY:** To identify and manage emerging and existing climate risks, Trane Technologies performed a climate scenario analysis as of 2021, to assess and address climate related risks and opportunities that may arise under different future pathways of climate change. The physical scenario analysis covers 45 physical locations both owned and leased globally and the entirety of the consolidated Trane Technologies operations for identified material transition risks to the business. The analysis was performed for three time horizons (2025 - short term, 2030 - medium term, and 2050 - long term) under four climate-related scenarios published by the Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report (AR6) scenarios and one scenario published by the Integrated Assessment Modeling Consortium (IAMC). The scenarios selected for analysis reflect relevant industry-specific insights and leading practices of climate-related scenario analysis. Through the use of the IPCC and IAMC scenarios, we have evaluated physical and transition climate-related risks and opportunities to integrate and manage through our business planning and strategy processes. We use the results of the scenario analysis to aid in the resiliency of our organization through the use of the potential climate futures surrounding policy developments and market shifts, as well as interpreting the implications and impacts under different scenarios.

**ASSESS:** In addition to identifying any transition or physical climate risks for our upstream, downstream, and direct operations, our ERI team and Center for Energy Efficiency and Sustainability (CEES) assess and evaluate emerging regulations that support identification of risks from use of our products. ERI and CEES are supported through our external Advisory Council on Sustainability, composed of climate and industry experts, as well as our internal Sustainability Strategy Council. The Council helps the company identify/evaluate climate issues and risks related to the business. We also participate in global initiatives, charters, partnerships, and memberships to discuss climate change risks which help guide our action plan. One such example is our participation with We Mean Business: Adopt a Science-Based Emissions Reduction Target. This coalition aligns global companies with a 1.5 degree Celsius pathway through strategy support and engagement.

In addition, we assess climate risks using multiple tools across the enterprise. For example, we perform a materiality assessment, including climate-related issues within short and medium time frames. Our most recent materiality assessment was performed in 2022 with ESG and sustainability topics as the central driver. By conducting a materiality assessment with key external and internal stakeholders we can identify material issues which pose key risks.

We also utilize the World Resource Institute (WRI) Aqueduct™ tool to identify and designate sites that score medium-high or high for water stress over a medium -term time frame of 1-5 years. We track monthly water use through the Benchmark management system and use the WaterWatch™ tool to execute water risk management. We consider physical risk quality and quantity, as well as regulatory and reputational risk. Some of our manufacturing sites are considered to be in areas of medium-high to high water stress. For these sites we have instituted a net positive water commitment by 2030.

**MANAGE:** The ERI team works closely with enterprise leadership team throughout the year to evaluate and manage risks for the businesses upstream, downstream, and direct operations. Risk management requires resiliency in operations and strategy. Through reviews of readiness and resiliency to address impacts of climate risks and opportunities, the following recommendations for resiliency improvement were identified:

1. Build upon and refresh climate scenario analysis and financial modeling - leveraging additional information (e.g., supply chain data) and increasing data granularity may provide increased clarity and visibility into the results of the analysis and financial modeling and improve future analyses
2. Evaluate supply chain impacts - This analysis projects financial consequences related to direct operations. In 2021, supply chain disruption was identified as a top risk in the Enterprise Risk Management Risk Prioritization Survey. By expanding climate scenario analysis to include the entire value chain, evaluating climate impacts within the supply chain may inform mitigation strategies to reduce these future financial impacts, avoid delays, and capitalize market growth
3. Consider strategies to reduce dependence on combustion fuels - Supply lines for combustion fuels are projected to become increasingly strained across scenarios. Reduction in combustion fuels may mitigate risks related to the supply chain as well as regulations such as carbon pricing.

Another tool to address climate related risk is linking our ESG Metrics to Executive and Employee Compensation. The AIM remuneration structure for our top executives and 2,900 leaders across the company includes ESG goals. By linking pay with our climate related goals, we further incentivize and ensure strategy management and climate risk/opportunity consideration throughout the organization. Our Board of Directors reviews the enterprise leadership team's performance against their ESG goals and reviews their sustainability strategies, among other performance factors.

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## C2.2a



**(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?**

	Relevance & Inclusion	Please explain
Current regulation	Relevant, always included	Integrated into materiality assessment using the description: Our operations are subject to a number of laws and regulations, including laws related to the environment. Any violations of applicable laws could lead to significant penalties, fines or other sanctions. For example: many of our products (Trane HVAC and Thermo King) use refrigerants. Current laws (eg. Section 608 of the Clean Air Act) regulate the handling of refrigerants. Federal law prohibits refrigerant venting but state and local enforcement varies by jurisdiction.
Emerging regulation	Relevant, always included	Integrated into enterprise risk intelligence using the description: The risk that global climate change may negatively affect Trane Technologies' operations due to changes in legislative and regulatory requirements or potential defunding of climate-related international agreements or initiatives. Either of these factors could result in increased volatility of renewable and non-renewable energy prices; increased cost of compliance (e.g. price on carbon) or other increases in production costs. Example risk: Refrigerants are essential to many of our products (for example, Trane HVAC equipment and Thermo King refrigerated transport equipment) and there is a growing awareness and concern regarding global warming potential of such materials. As such, national, regional and international regulations and policies are being implemented to curtail their use. An example of this risk is: Regulation is enacted in a region that forces us to curtail the use of a particular refrigerant that is widely used in our HVAC products resulting in stranded operational assets. The Kigali Amendment to the Montreal Protocol requires ~80% reduction in hydrofluorocarbons (HFCs) based on CO2eq, but some jurisdictions are regulating phase out dates of particular equipment and setting global warming potential (GWP) limits like California, which is proposing a regulation that will no longer allow R410A in the majority of HVAC equipment. To address these risks, Trane Technologies is continually investing in and testing innovation such as cooling technology that uses next-generation, low-GWP or natural refrigerants.
Technology	Relevant, always included	Integrated into materiality assessment using the description: Technology and Innovation: Innovation in products, systems, and manufacturing processes to meet different market needs and megatrends such as climate change. Integration of automation into product design and customer solutions. Example risk: We must develop and commercialize new products and services in a rapidly changing technological and business environment in order to remain competitive in our current and future markets and in order to continue to grow our business. The development and commercialization of new products and services require a significant investment of resources and an anticipation of the impact of new technologies and the ability to compete with others who may have superior resources in specific technology domains. Investment in a product or service could divert our attention and resources from other projects that become more commercially viable in the market. Failure to develop new products and services that are accepted by these markets could have a material adverse impact on our competitive position, results of operations, financial condition, and cash flows. For example, an estimated 90% of our portfolio addresses greater need for energy efficiency (Trane air conditioning, Thermo King Auxiliary Power Units), a risk could be failure to develop new products that are accepted in markets demanding more energy efficient solutions. To address this risk, Trane Technologies continually invests in innovation to develop industry-leading, sustainable solutions.
Legal	Not relevant, included	For Trane Technologies, because our biggest climate-related impact is from the energy and refrigerant use of our products, climate change related legal risks stem from regulation of refrigerants and energy efficiency. We address both future and current legal risk under current and emerging regulation.
Market	Not relevant, included	Climate-related risks from market shifts in demand for our products would stem from regulatory changes (refrigerant and/or energy efficiency -Trane HVAC) and our ability to innovate to meet the changing needs of customers. This risk category is therefore covered under current regulation, emerging regulation and technology.
Reputation	Relevant, always included	Integrated into Enterprise Risk Intelligence using the description: The risk that actual or perceived incidents or actions (e.g. environmental damage) at Trane Technologies may lead to reputation or brand damage. For example: many of our products (Trane HVAC and Thermo King) use refrigerants. Current laws regulate the handling of refrigerants. Failure to properly manage refrigerants could lead to reputation damage. Federal law prohibits refrigerant venting but state and local enforcement varies by jurisdiction.
Acute physical	Relevant, always included	Integrated into materiality assessment using the description: Disaster preparedness and response - Emergency preparedness and disaster relief strategy, deployment of company resources and talent to disaster areas Example risk: The occurrence of one or more catastrophic events including hurricanes, fires, earthquakes, floods and other forms of severe weather, health epidemics or pandemics or other contagious outbreaks or other catastrophic events in the U.S. or in other countries in which we operate or are located could adversely affect our operations and financial performance. Natural disasters, power outages, health epidemics or pandemics or other contagious outbreaks or other unexpected events could result in physical damage to and complete or partial closure of one or more of our plants, temporary or long-term disruption of our operations by causing business interruptions, material scarcity, price volatility or supply chain disruptions. Climate change is a risk multiplier with respect to these physical disasters in both frequency and severity and may affect our global business operations as a result. Existing insurance arrangements may not provide full protection for the costs that may arise from such events, particularly if such events are catastrophic in nature or occur in combination. The occurrence of any of these events could increase our insurance and other operating costs or harm our sales in affected areas.
Chronic physical	Relevant, always included	Integrated into materiality assessment using the description: Climate Risk Management - Business resilience and adaptation to climate-related physical and transitional risks and opportunities. For example: 14 of our manufacturing and large offices are in areas of medium high or high water stress (Bari Italy, Charnes France, Golbey France, Monterrey MX, Southampton UK, Taicang China (2), Bangplee Thailand, Zhongshan China, Trenton NJ, Atlanta GA, Barcelona Spain, and Hastings NE).

**C2.3**

**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

**C2.3a**

**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Technology	Substitution of existing products and services with lower emissions options
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**Primary potential financial impact**

Decreased revenues due to reduced demand for products and services

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Impact of climate change due to technology substitution and obsolescence considering medium term time horizons i.e. for the period 3-10 years is detailed below:  
In the case of aggressive climate action SSP1-1.9 (1.5°C) or IEA APS, there could be high negative impact on sales of HVAC and transport solutions. Assuming Trane Technologies' share in the sector remaining constant, the enterprise valuation is expected to be roughly 13% lower as compared to the business-as-usual scenario. There may be significant requirement to rework manufacturing and product value offering due to rapid changes in demand in technology leading to a high impact on operating costs and R&D expenditures. Trane Technologies may see major investment requirements and costs associated with continual innovation to meet changing demands and policies for products. Trane Technologies may see significant change in the mix of priority products and markets due to changing demands for technology in efficient operation and energy use. Revenues are estimated to shrink by about 7% against the 2021 baseline due to changes in demand.

Based on the climate scenario analysis conducted in 2022, Trane Technologies believes we are well prepared to seize opportunities arising from climate change. Our business strategy is aligned to sustainability megatrends and we stay abreast of emerging policy and regulations. We continually invest in innovation to develop industry-leading, sustainable solutions, and could see significant demand from customers for these products and services.

**Time horizon**

Medium-term

**Likelihood**

Unlikely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

989800000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

The above is an estimate based on: Based on aggressive climate scenario, revenues could potentially shrink 7% against our 2021 baseline. In 2021, revenues were \$14.14b.  $.07 \times 14.14b = \$989,800,000$

**Cost of response to risk**

211000000

**Description of response and explanation of cost calculation**

Trane Technologies has taken various measures to reduce its risk for technology obsolescence, through R&D investment in energy efficient products, developing products that allow for use of lower GWP refrigerants, substitute materials and fuels, and other innovation research to prepare for shifting trends in technology. Trane Technologies also using R&D to develop electrification solutions for comfort and process heating and refrigerated transport. In 2022, we spent \$211M in sustainability-driven R&D focused on innovation.

In 2022, from continued focus on sustainable innovation, Trane® launched CITY Advantage, a line of compact scroll water-cooled chillers and water-source heat pumps for commercial use. These new products use R454B, a low-GWP refrigerant that offers a 76% reduction in direct GWP against R410A and a 34% reduction against R32. The CITY Advantage line also helps customers move away from fossil fuel-based technologies and achieve an 11% better Seasonal Energy Efficiency Ratio (SEER) in cooling mode and up to 5% better Seasonal Coefficient of Performance (SCOP) in pure heating mode. These modular technologies help our small to medium business customers reduce their emissions footprint, increase efficiency, and lower operating costs.

**Comment**

The projected outcomes in each of the foregoing scenarios is based only on the limited assumptions that have been provided and actual results under any or all of the scenarios could materially differ due to factors outside of the scope of these assumptions, or if the assumptions differ. This information should not be relied upon as a statement of, or revision to, any forward-looking guidance provided by the Company in conjunction with its SEC filings.

**Identifier**

Risk 2

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Acute physical	Flood (coastal, fluvial, pluvial, groundwater)
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**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

<Not Applicable>

**Company-specific description**

Physical risk scenario analysis was conducted at 45 locations owned or leased by Trane Technologies. Facilities assessed include manufacturing, R&D centers, remanufacturing, business services, and warehouses. The regions analyzed include the Americas, Asia Pacific and EMEA. Through a physical climate risk selection process, 8 physical climate hazards were identified for risk analysis at all in-scope locations; this allows for a better understanding of the impacts of a set of climate hazards specific to Trane Technologies' considerations. The 8 priority physical climate hazards assessed include 6 acute physical risks (i.e. extreme heat, extreme cold, extreme precipitation, flood, wildfire and drought) and 2 chronic physical risks (chronic temperature and chronic precipitation). An average exposure rating was assessed at in-scope Trane Technologies operations

The analysis determined that Trane Technologies' direct operations are projected to experience impact as it relates to both acute physical risks and chronic physical risks from climate change under the insufficient climate action scenario, moderate climate action scenario, and aggressive climate action scenario. Trane Technologies locations are exposed to multiple physical hazards, with locations in China, the United States, India and Thailand exposed to the most severe physical risks. Across priority physical hazards, the greatest physical risk exposure across Trane Technologies' locations is to extreme heat, extreme cold, and extreme precipitation. Sea level rise may result in high rates of coastal flooding at certain facilities. Undertaking physical scenario analysis for Trane Technologies' priority facilities selected helps to indicate the degree of potential flooding which could lead to increase in operating costs and capital costs due to damages.

The occurrence of one or more unexpected events including hurricanes, floods and other forms of severe weather could adversely affect our operations and financial performance. This could result in physical damage to and complete or partial closure of one or more of our plants, temporary or long-term disruption of our operations by causing business interruptions or by impacting the availability and cost of materials needed for manufacturing.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

81900000

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Under the assumption of a medium time horizon for acute physical risks, each site is assigned an exposure rating from very low to very high. For sites that are considered very high risk for flooding, we have identified the 2022 Cost of Goods Sold (COGS) as: \$81.9M. We estimate that this could be the potential impact if site with high flood risk were unable to operate.

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

Planning for an extreme weather event, and other crises, is managed as a risk in our Enterprise Risk Intelligence process and is consistent with our core corporate values. For example: The Trane Technologies Crisis Management Resource Guide and our Facility Crisis Management Plans, have been developed to help manage a crisis successfully at the local level by minimizing impact through a structured, timely and practiced response.

Relative to water stress: Annually, we conduct a risk assessment using the World Resources Institute (WRI) Aqueduct (TM) tool and designate sites that score medium-high or high for water stress. We consider physical risk quality and quantity, as well as regulatory and reputational risk. In 2022 14 sites globally were considered to be in areas at risk. For these sites we have a 2030 target in place to reduce water consumption and to be net water positive. We have enterprise water management policies for water supply management, storm water management and wastewater discharge management. There is no cost of response to this risk as it is rolled into our water management process.

**Comment**

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**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type & Primary climate-related risk driver**

Emerging regulation	Carbon pricing mechanisms
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**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

&lt;Not Applicable&gt;

**Company-specific description**

The impact of climate change due to exposure to emerging GHG emissions regulations and taxation considering short term time horizons i.e. for the period 1-3 years is detailed below:

Under the assumption of aggressive climate action SSP1-1.9 (1.5°C) or IEA APS, there may be heightened costs associated with compliance with regulations and policies. If the carbon intensity of business stays constant, Trane Technologies may directionally incur carbon costs in Asia, the Americas and EMEA under SSP1-1.9 and under low energy demand. If Trane Technologies stays on a Net Zero by 2050 trajectory, carbon costs may be significantly reduced but still present. Trane Technologies may see significant increase in operating costs associated with meeting GHG emissions regulations in several areas (i.e. energy efficiency, building codification and requirements, materials regulation, refrigerants, carbon costs, emissions restrictions, net zero targets). Trane Technologies may see reduction in demand for stale products dependent on fossil fuels and other high GWP materials.

Based on the climate scenario analysis conducted in 2022, Trane Technologies believes we are well prepared to seize opportunities arising from climate change. Our business strategy is aligned to sustainability megatrends and we stay abreast of emerging policy and regulations. We continually invest in innovation to develop industry-leading, sustainable solutions, and could see significant demand from customers for these products and services.

**Time horizon**

Medium-term

**Likelihood**

Unlikely

**Magnitude of impact**

Medium-low

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

265000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Under the assumption of aggressive climate action SSP1- 1.9 (1.5°C) or IEA APS, if carbon intensity of the business stays constant, we estimate that Trane Technologies may potentially incur carbon costs of up to 265M.

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

This risk response is built into our advocacy strategy. We have a robust advocacy strategy that addresses the risk that global climate change may negatively affect Trane Technologies' operations due to changes in legislative and regulatory requirements or potential defunding of climate-related international agreements or initiatives. We have a commitment to reduce absolute energy consumption by 10% by 2030, commitment to be 100% renewable energy powered by 2040, as well as a SBTi approved net-zero commitment by 2050.

**Comment**

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## C2.4

**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

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### C2.4a

**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Under the assumption of aggressive climate action SSP1-1.9 (1.5°C) there may be potential for high growth through aggressive new product development. The enterprise valuation of a company the size of Trane Technologies could shrink by approximately 27% under a low energy demand scenario thereby indicating a potential 27% market in new products that may be captured by Trane Technologies through development of low energy and low carbon emission products. Trane Technologies could see significant demand from customers for energy efficient products to meet regulatory requirements and policies. There may be an increase in revenue available to capture from aligning with requirements such as building codes for efficiency, emissions output of products, material sourcing, and other technological advancements. Utilizing these assumptions, we could envision an approximately 32% growth in revenue may be captured by investing in alternative technologies.

Nearly half of all global energy consumption takes place in commercial, industrial and residential buildings, with heating, ventilation and air conditioning (HVAC) and lighting systems representing the greatest opportunity for improvement. Given the prevalence of energy consuming Trane Technologies products in the built environment, product efficiency regulation is important to us. Energy efficient and low emission products, and Technology and innovation are the two most material climate-related issues for the company. More than 90 percent of our product portfolio directly addresses demands for greater energy efficiency with lower greenhouse gas (GHG) emissions in buildings, homes, and transport markets around the world. Examples include Trane Technologies ECTV CenTraVac Chiller, Pueblo Chiller, Trane Sintesis eXcellent, EU Trane CenTraVac, MEA Trane CenTraVac, Thermo King Truck & Trailer SLXe and SLXi, and Cryotech refrigeration. Therefore, we make reducing energy use and improving the carbon footprint of our products two primary objectives of our sustainability efforts.

Based on the climate scenario analysis conducted in 2022, Trane Technologies believes we are well prepared to seize opportunities arising from climate change. Our business strategy is aligned to sustainability megatrends and we stay abreast of emerging policy and regulations. We continually invest in innovation to develop industry-leading, sustainable solutions, and could see significant demand from customers for these products and services.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

6077000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

The above is an estimate based on: More than 90 percent of our product portfolio directly addresses demands for greater energy efficiency with lower greenhouse gas (GHG) emissions in buildings, homes and transport markets around the world. We reported net revenues of \$15.992B in 2022, with 38% of that calculated as clean revenue. We measure and track our progress towards an energy-efficient and low-emission product portfolio through revenue estimated as Clean Revenue, which is defined 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. We expect demand for our energy-efficient products and services will increase with effective product efficiency regulation. We estimate that 38 percent of our 2022 revenue is the gross potential financial impact.  $.38 \times 15.992B = 6.077B$

**Cost to realize opportunity**

211000000

**Strategy to realize opportunity and explanation of cost calculation**

The cost associated with development of energy efficient technologies and management of policy advocacy are accounted for in our sustainability-driven R&D. Our R&D spend in 2022 was 211m USD, therefore that is the cost to realize this opportunity. Product development and innovation: Our portfolio most directly affects the environment during the in-use phase of the product's life cycle, so designing for energy efficient operation is paramount. Trane Technologies supports cost effective policies that facilitate market transition to more energy efficient technologies. We actively advocate for legislative efforts to facilitate the increased use of energy efficiency technologies in the residential and commercial sectors while fostering job creation. We define our customer carbon footprint as those emissions we are able to avoid through the use of our products when compared to a business as usual scenario. Increased demand for system-level building efficiency in the face of climate change has provided Trane Technologies an opportunity to lead by example through supporting customers decarbonization efforts.

For example, in 2022, Trane launched CITY Advantage, a line of compact scroll water-cooled chillers and water-source heat pumps for commercial use. These new products use R454B, a low-GWP refrigerant that offers a 76% reduction in direct GWP against R410A and a 34% reduction against R32. The CITY Advantage line also helps customers move away from fossil fuel-based technologies and achieve an 11% better Seasonal Energy Efficiency Ratio (SEER) in cooling mode and up to 5% better Seasonal Coefficient of Performance (SCOP) in pure heating mode. These modular technologies help our small to medium business customers reduce their emissions footprint, increase efficiency, and lower operating costs.

**Comment**

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**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

Changes in weather patterns and seasonal fluctuations affect certain segments of our business. Demand for certain segments of our products and services is influenced by weather conditions. For instance, Trane's sales of Heating, Ventilating and Air Conditioning equipment have historically tended to be seasonally higher in the second and third quarters of the year because, in the U.S. and other northern hemisphere markets, summer is the peak season for sales of air conditioning systems and services. Therefore, unseasonably warm trends during the summer season could positively affect certain segments of our business and impact overall results of operations.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

6077000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

The above is an estimate based on: Total Revenues (which includes Trane and American Standard Heating and Air Conditioning; energy services and building automation and Thermo King transport temperature control solutions) were \$15.992b USD in 2022. We have calculated our Clean Revenue based on the Corporate Knights definition

and methodology to be 38% of our total revenue. 38% of 15.992B is 6.077B

**Cost to realize opportunity**

211000000

**Strategy to realize opportunity and explanation of cost calculation**

Innovation and Growth: Our growth strategy is guided by the Trane Technologies business operating system, which is foundational to what we do and how we run the company. Our business operating system extends from strategy development, to how we connect with our customers and help make them successful to how Trane Technologies is paid for the customer value we create. Leveraging our business operating system, we use customer analytics tools to gain greater insight into our customers and competitors to make strategic choices about the most promising and profitable growth opportunities. Our Product Growth Teams (PGT) bring together leaders in product management, global integrated supply chain (GISC) and engineering to evaluate the entire value stream. Costs associated with development of energy efficient technologies are primarily in R&D. Our R&D spend in 2022 was 211M USD.

**Comment**

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**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Downstream

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

A little less than half of the world's population today lives in an urban environment, but trends suggest that an additional 350 million people will be added to the urban population over the next 15 years. This means that significant additions to urban capacity, in the form of housing, infrastructure and facilities, will be required to help cities keep up with a rapid influx of people. Driving innovation for developing markets is an issue of significant importance to our stakeholders and Trane Technologies. We are working strategically to increase our exposure to emerging markets. We are also strategically committed to addressing social and environmental imperatives to assist in expanding energy and other resource efficiency knowledge in developing regions. As a company that provides solutions for energy efficiency, economic productivity and greenhouse gas mitigation - through brands such as Trane and American Standard that provide heating, ventilation and air conditioning systems for commercial and residential buildings; and Thermo King, a leading provider of transport temperature control solutions, we are positioned to help meet these challenges. The expected population shift can lead to an increased demand for these products and solutions.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-high

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

3390000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

The above is an estimate based on: We expect the global socio-economic trend of increased urbanization will result in accelerated growth in developing markets. In 2022, our average revenue from innovation was 21.2% This 21.2% is Trane Technologies' Innovation Revenue metric. We define the metric as the revenue occurring in the current reporting year, derived from new solutions or new markets launched within the prior 36 months.  $.212 \times 15.992B = 3.39B$

**Cost to realize opportunity**

211000000

**Strategy to realize opportunity and explanation of cost calculation**

Costs associated with development of energy efficient technologies are accounted for within sustainability-driven R&D. Our R&D spend in 2022 was 211M USD. To accelerate growth in emerging markets we are focusing on innovation to serve these markets. We use a three-step process to prioritize our investments in these markets. 1) we consider the macroeconomic and geopolitical conditions of an emerging market at the country level 2) we perform an analytical assessment of the current attractiveness of our business, considering competitors, customers and channels 3) we consider how the attractiveness of this business will evolve. We employ thousands of engineers at 14 engineering and technology centers globally, including facilities in India, Prague, Czech Republic and Shanghai, China. Our innovation effort have been particularly successful in China which makes up a majority of emerging market revenue. We have established large local teams with manufacturing facilities and strong local channel partners. For example: The Trane HVAC business in China is participating in the 'Coal to Electricity' program which is intended to significantly lower coal consumption for winter heating in North China, prevent air pollution and improve the air quality in China over the long term.

**Comment**

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### C3. Business Strategy

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#### C3.1

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##### (C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

###### Row 1

**Climate transition plan**

Yes, we have a climate transition plan which aligns with a 1.5°C world

**Publicly available climate transition plan**

Yes

**Mechanism by which feedback is collected from shareholders on your climate transition plan**

We have a different feedback mechanism in place

**Description of feedback mechanism**

We conduct an annual engagement process with stakeholders to collect insight and feedback on relevant ESG-related issues. We share our annual disclosures, including the annual ESG Report, externally, and request input from stakeholders on the disclosures and actions the Company is taking. Stakeholders are given the opportunity to respond or engage in further discussion with our executive management team. In addition, the Company routinely discusses ESG issues with various stakeholders for ongoing feedback and communication.

**Frequency of feedback collection**

Annually

**Attach any relevant documents which detail your climate transition plan (optional)**

2022-ESG-Report.pdf

**Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future**

<Not Applicable>

**Explain why climate-related risks and opportunities have not influenced your strategy**

<Not Applicable>

#### C3.2

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##### (C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

#### C3.2a

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**(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.**

Climate-related scenario		Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios	IEA APS	Company-wide	<Not Applicable>	Scenarios were selected based on the following factors: - Peer benchmarking and leading industry practices - Alignment with Trane Technologies' SBTi and net zero target of limiting global temperature rise to no more than 1.5°C - Alignment with the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations; for the use of multiple different pathways for scenario analysis, including a 2°C or lower scenario - Goal to evaluate Trane Technologies-specific future scenario impacts for energy use and demand - Scientifically backed scenarios for future modeling
Physical climate scenarios	RCP 2.6	Company-wide	<Not Applicable>	Scenarios were selected based on the following factors: - Peer benchmarking and leading industry practices - Alignment with Trane Technologies' SBTi and net zero target of limiting global temperature rise to no more than 1.5°C - Alignment with the TCFD recommendations; for the use of multiple different pathways for scenario analysis, including a 2°C or lower scenario - Goal to evaluate Trane Technologies-specific future scenario impacts for energy use and demand - Scientifically backed scenarios for future modeling
Physical climate scenarios	RCP 4.5	Company-wide	<Not Applicable>	Scenarios were selected based on the following factors: - Peer benchmarking and leading industry practices - Alignment with Trane Technologies' SBTi and net zero target of limiting global temperature rise to no more than 1.5°C - Alignment with the TCFD recommendations; for the use of multiple different pathways for scenario analysis, including a 2°C or lower scenario - Goal to evaluate Trane Technologies-specific future scenario impacts for energy use and demand - Scientifically backed scenarios for future modeling
Physical climate scenarios	RCP 8.5	Company-wide	<Not Applicable>	Scenarios were selected based on the following factors: - Peer benchmarking and leading industry practices - Alignment with Trane Technologies' SBTi and net zero target of limiting global temperature rise to no more than 1.5°C - Alignment with the TCFD recommendations; for the use of multiple different pathways for scenario analysis, including a 2°C or lower scenario - Goal to evaluate Trane Technologies-specific future scenario impacts for energy use and demand - Scientifically backed scenarios for future modeling
Transition scenarios	Customized publicly available transition scenario	Company-wide	1.5°C	Low Energy Demand IAMIC 1.5 C Scenarios were selected based on the following factors: - Peer benchmarking and leading industry practices - Alignment with Trane Technologies' SBTi and net zero target of limiting global temperature rise to no more than 1.5°C - Alignment with the TCFD recommendations; for the use of multiple different pathways for scenario analysis, including a 2°C or lower scenario - Goal to evaluate Trane Technologies-specific future scenario impacts for energy use and demand - Scientifically backed scenarios for future modeling

**C3.2b**

**(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.**

**Row 1**

**Focal questions**

- How does Trane Technologies manage risk as it relates to climate change?
- What are the impacts of climate-related risks and opportunities in the future on Trane Technologies?
- How prepared is Trane Technologies to seize opportunities arising from climate change?

**Results of the climate-related scenario analysis with respect to the focal questions**

>We address the question of how we are managing risk as it relates to climate change. Trane Technologies uses climate scenario analysis as one of many tools to assess potential impacts to the business. It enables enhanced preparedness for multiple futures under climate change and allows for consideration on level of impact climate change may have on operations, strategy, and financial planning. It also allows alignment for prioritization of strategy.

>Through climate scenario analysis we now better understand the impacts of climate-related risks and opportunities. Trane Technologies may experience impacts on its business due to acute and chronic physical risks due to climate change, along with technology obsolescence or decreased demand and exposure to emerging GHG emissions regulations and taxation in the transition to a low-carbon economy. The risk of technology substitution and obsolescence due to increased demand for low-emissions and fuel-flexible, machinery, equipment, and heaters/coolers could result in the following impacts to Trane Technologies;

- Decreased demand for products that are obsolete due to regulation or demand shifts
- Increased R&D expenditures in new technologies

The risk of exposure to emerging GHG emissions regulations and taxation due to advances in environmental and carbon policies could result in the following impacts to Trane Technologies:

- Increased costs of compliance, increased R&D investments and stranded assets for products which do not meet regulatory requirements for environmentally safe and low GWP materials.
- Decreased demand for products and services that do not meet regulatory requirements, specifically the use of refrigerants/refrigerant products

>Based on the climate scenario analysis conducted in 2022, Trane Technologies believes we are well prepared to seize opportunities arising from climate change. A strategic choice that was made in alignment with the results of the scenario assessment was to develop and publicly share our Net Zero Roadmap, a climate transition plan that is aligned with a 1.5C future, details our plan to achieve approved SBT net zero targets, and is the first in the industry to show the huge impact energy efficient and low GWP products can have.

**C3.3**



**(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.**

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Our climate commitment requires us to offer a full line of next generation, lower global warming potential products by 2030 without compromising safety or energy efficiency. From 2021-2024 we are introducing high efficiency products that will aim to help us meet our gigaton challenge, which is reducing our customer carbon footprint by 1 gigaton, which includes our Scope 3 product emissions. From 2022-2024 we also have strategies in place to transition from high GWP refrigerants in advance of new regulations that may establish lower emission standards. Also, there continues to be a lack of consistent climate legislation, which creates economic and regulatory uncertainty. Such regulatory uncertainty extends to future incentives for energy efficient buildings and vehicles and costs of compliance, which may impact the demand for our products, obsolescence of our products and our results of operations. An example of a substantial decision and product related investments we have made is in the development of Ecowise offerings, specifically in Trane® CenTraVac™ chillers that can operate with either R-123 or with one of our next-generation refrigerants, R-514A or R-1233zd, both of which offer ultra-low GWP levels of less than 2. By offering multiple refrigerant options in our larger-tonnage chillers, we have the flexibility to better optimize solutions for our customers' application needs. Working with other industry leaders, Trane Technologies is helping find new refrigerant solutions like R-452B, a next-generation, low GWP refrigerant with strong safety, design and sustainability performance.
Supply chain and/or value chain	Yes	We source raw materials and certain critical parts from suppliers around the world. Many sourced goods from suppliers originate in countries that are prone to physical climate risks associated with severe weather events and climate related disruptions. We have robust management processes in place to monitor our supply base to detect any such disruptions, which requires substantial managerial and technology investments. We also require suppliers to report on climate related targets such as energy usage and GHG emissions as a part of our sourcing selection. We use risk management and assessment tools to create transparency to such risks in the supplier eco-system.
Investment in R&D	Yes	As regulations require changes in refrigerants, current products will have to be optimized or redesigned which increases our product development and marketing costs. Costs associated with refrigerant evaluation and development of technologies are primarily in R&D. As part of our global climate commitments we continue to invest in product-related research and development to catalyze the long-term reduction of GHG emissions industry-wide. One example is our strategic decision to invest in the development of lower GWP refrigerants like R-452B that can help the industry transition to lower GWP but still deliver strong safety and performance in a more sustainable way.
Operations	Yes	Trane understands the large role heating and cooling plays on the world's emissions (an estimated 15% of global emissions come from heating and cooling buildings) and therefore we have set strong goals based on climate science and aligned with SBTi. As part of our 2030 Sustainability Commitments, we are targeting carbon neutral operations, net positive water in water stressed areas and zero waste to landfill. In order to support the green energy transition we also have committed to achieving 10% absolute energy reduction by 2030 as well as 100% renewable energy by 2040. All of these commitments and related actions are to enable a low carbon economy. These sustainability objectives for our operations have been incorporated as central tenets of our enterprise strategy. All businesses have incorporated these goals into their strategies. As an example, in 2022, our facility in Charmes, France, transitioned to electric heating by eliminating older, inefficient natural gas boilers. These newly installed heating systems will reduce our carbon footprint at the location and reduce energy costs. We installed three Trane Sintesis™ Advantage CXAF air-to-water reversible heat pumps and two Trane CITY RTSF water-to-water heat pumps. Through this conversion, our Charmes facility reduced annual energy use by over 800,000 kWh.

**C3.4**

**(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.**

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues	We have Strategic Business Unit (SBU) level targets for revenue and performance related to emissions reductions from our products and solutions. Each SBU develops a plan for meeting the target through our portfolio of products designed to lower environmental impact with next generation, low global warming potential refrigerants and high efficiency operation. As part of our annual and 3 year planning process, we focus our investment prioritization decisions on a variety of factors, including the impact of proposed investments on our ability to deliver on our sustainability commitments. Investments in products and plants are favorably considered if they advance our sustainability objectives. The businesses are encouraged to shift their product and service offerings that advance our commitments to energy efficiency and sustainability through reduction of emissions. Our plans extend such prioritization beyond internal organic growth initiatives to include customer choices that favor reduction of greenhouse gas emissions, and also acquisition target evaluations. For example, we made a considerable investment in upgrading one of our manufacturing facilities in Trenton, NJ by installing solar panels at the plant location thereby reducing the energy consumption. This project was a material capital investment for the business that was evaluated, approved, and implemented as part of the financial planning process. We measure and track our progress towards an energy-efficient and low-emission product portfolio through revenue estimated as Clean Revenue, which is defined 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. We have calculated that 38% of our revenue in 2022 is considered Clean Revenue. 15.992B x .38= \$6.077B

**C3.5**

**(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?**

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	No, but we plan to in the next two years	<Not Applicable>

**C4. Targets and performance**

**C4.1**

**(C4.1) Did you have an emissions target that was active in the reporting year?**

- Absolute target
- Intensity target

**(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.****Target reference number**

Abs 1

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Year target was set**

2020

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Market-based

**Scope 3 category(ies)**

&lt;Not Applicable&gt;

**Base year**

2019

**Base year Scope 1 emissions covered by target (metric tons CO2e)**

315747

**Base year Scope 2 emissions covered by target (metric tons CO2e)**

107075

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year total Scope 3 emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Total base year emissions covered by target in all selected Scopes (metric tons CO2e)**

422853

**Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1**

100

**Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2**

100

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

**Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)**

<Not Applicable>

**Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes**

100

**Target year**

2030

**Targeted reduction from base year (%)**

50

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**

211426.5

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**  
237639

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**  
55708

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)**  
<Not Applicable>

**Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)**  
293347

**Does this target cover any land-related emissions?**  
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**  
61.25343795598

**Target status in reporting year**  
Underway

**Please explain target coverage and identify any exclusions**  
We have committed to reduce scope 1 and 2 emissions by 50% by 2030 from a 2019 baseline. This is 1.5°C aligned and our short-term target. Our long-term target is to reduce scope 1 and 2 emissions by 90% by 2050, this target has been approved by SBTi as a Net-zero target.

**Plan for achieving target, and progress made to the end of the reporting year**  
Focus on absolute energy reduction, electrifying manufacturing and fleet, as well as scaling up our investment in renewable technologies.

**List the emissions reduction initiatives which contributed most to achieving this target**  
<Not Applicable>

---

## C4.1b

**(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).**

**Target reference number**  
Int 1

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Year target was set**

2020

**Target coverage**

Company-wide

**Scope(s)**

Scope 3

**Scope 2 accounting method**

<Not Applicable>

**Scope 3 category(ies)**

Category 11: Use of sold products

**Intensity metric**

Other, please specify (metric tons co2e per cooling ton)

**Base year**

2019

**Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)**

365000000

**Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)**

365000000

**Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)**

365000000

**% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure**

<Not Applicable>

**% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure**  
100

**% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure**  
<Not Applicable>

**% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure**  
90

**% of total base year emissions in all selected Scopes covered by this intensity figure**  
90

**Target year**  
2030

**Targeted reduction from base year (%)**  
55

**Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]**  
164250000

**% change anticipated in absolute Scope 1+2 emissions**  
0

**% change anticipated in absolute Scope 3 emissions**  
2

**Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)**  
<Not Applicable>

**Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)**  
<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)**  
<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)**

303000000

**Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)**

<Not Applicable>

**Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)**

303000000

**Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)**

303000000

**Does this target cover any land-related emissions?**

No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

**% of target achieved relative to base year [auto-calculated]**

30.8841843088418

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

This target is our near-term target for SBTi, 1.5°C aligned. The target is to reduce product use emissions in emissions per cooling ton by 55% by 2030 from a 2019 baseline. This is the near-term target that aligns with our SBTi approved net-zero target to reduce product use emissions (emissions per cooling ton) by 97% by 2050.

**Plan for achieving target, and progress made to the end of the reporting year**

We plan to accelerate use of high efficiency equipment with an entire system-level approach to buildings, homes, and transport; utilizing climate management to further enhance energy efficiency, expand electrification, reduce costs, and strengthen regulatory resiliency. We also plan to transition equipment to lower GWP refrigerants ahead of regulations.

**List the emissions reduction initiatives which contributed most to achieving this target**

<Not Applicable>

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## C4.2

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Net-zero target(s)

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## C4.2c

**(C4.2c) Provide details of your net-zero target(s).**

**Target reference number**

NZ1

**Target coverage**

Company-wide

**Absolute/intensity emission target(s) linked to this net-zero target**

Abs1

Int1

**Target year for achieving net zero**

2050

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Please explain target coverage and identify any exclusions**

This target includes our full Scope 1 and 2 emissions, no exclusions. This target also includes Scope 3 emissions from category 11, use of sold products, which includes over 90% of our Scope 3 emissions.

**Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?**

Yes

**Planned milestones and/or near-term investments for neutralization at target year**

We are currently developing a plan for neutralization.

**Planned actions to mitigate emissions beyond your value chain (optional)**

Our Gigaton Challenge includes avoided emissions from our customers' carbon footprint, with a level focused on system-level decarbonization.

**C4.3**

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

**C4.3a**

**(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	15	7587
To be implemented*	72	71927
Implementation commenced*	5	67500
Implemented*	23	33857
Not to be implemented	0	0

**C4.3b**

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Initiative category & Initiative type**

Energy efficiency in buildings	Lighting
--------------------------------	----------

**Estimated annual CO2e savings (metric tonnes CO2e)**

276.3

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

103250

**Investment required (unit currency – as specified in C0.4)**

1725000

**Payback period**

16-20 years

**Estimated lifetime of the initiative**

11-15 years



**Comment**

Extensive lighting &amp; controls upgrades

**Initiative category & Initiative type**

Low-carbon energy consumption	Liquid biofuels
-------------------------------	-----------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

145.85

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

180000

**Payback period**

No payback

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Shift from fossil-based diesel to hydrotreated vegetable for equipment run testing. HVO is derived from sustainable bio sources.

**Initiative category & Initiative type**

Non-energy industrial process emissions reductions	Process material substitution
--	-------------------------------

**Estimated annual CO2e savings (metric tonnes CO2e)**

32210.2

**Scope(s) or Scope 3 category(ies) where emissions savings occur**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

0

**Investment required (unit currency – as specified in C0.4)**

5500000

**Payback period**

No payback

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Convert to low global warming potential refrigerants used in OEM manufacturing.

**C4.3c****(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	Our corporate Environment, Health and Safety Management Systems (EMS) requirements apply to all majority-owned operations worldwide. Our internal EMS is posted to the Company's Business Operating System (BOS) platform which governs and standardizes how all functions within the Company operate. The basis of our EMS is derived from our existing corporate operational excellence program and applies the same principles to EHS by incorporating tools that have already proven successful. Within our EMS also sits our Environment, Health and Safety policy, which has been signed by our Chair and CEO.
Internal incentives/recognition programs	Challenge Possible Awards recognize achievements in areas that support Trane Technologies' goals including energy efficiency and greenhouse gas emission reductions. To more closely align the annual short-term incentive compensation of our leaders to the value that we, as a Company, place on environmental sustainability and employee diversity and inclusion, we utilize an ESG modifier as a component of Trane Technologies' annual incentive program (AIM).
Partnering with governments on technology development	We are engaged with policymakers to bring solutions to topics that are material to our business, with two areas where the company is most active including energy and refrigerant policy. Trane Technologies supports cost-effective policies that facilitate market transition to more energy-efficient, climate friendly technologies. We actively participate in international forums, such as the United Nations Framework Convention on Climate Change and the Montreal Protocol, to help create an organized approach to global refrigerant transitions without compromising on energy efficiency. We are also working proactively with government agencies and refrigerant suppliers to help identify alternatives and facilitate a practical transition that reduces greenhouse gas emissions as early as possible.

## C4.5

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### (C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

## C4.5a

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### (C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

#### Level of aggregation

Group of products or services

#### Taxonomy used to classify product(s) or service(s) as low-carbon

The IEA Energy Technology Perspectives Clean Energy Technology Guide

#### Type of product(s) or service(s)

Heating and cooling	Other, please specify (EcoWise portfolio)
---------------------	---

#### Description of product(s) or service(s)

HVAC and refrigeration systems, products or initiatives designed to lower environmental impact with next generation, low global warming potential refrigerants and high efficiency operation are part of an exclusive product portfolio known as EcoWise™. These products can be recognized by their use of the EcoWise™ name and logo in their communications and marketing materials.

#### Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

#### Methodology used to calculate avoided emissions

<Not Applicable>

#### Life cycle stage(s) covered for the low-carbon product(s) or services(s)

<Not Applicable>

#### Functional unit used

<Not Applicable>

#### Reference product/service or baseline scenario used

<Not Applicable>

#### Life cycle stage(s) covered for the reference product/service or baseline scenario

<Not Applicable>

#### Estimated avoided emissions (metric tons CO<sub>2</sub>e per functional unit) compared to reference product/service or baseline scenario

<Not Applicable>

#### Explain your calculation of avoided emissions, including any assumptions

<Not Applicable>

#### Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

38

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## C5. Emissions methodology

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## C5.1

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### (C5.1) Is this your first year of reporting emissions data to CDP?

No

## C5.1a

---

**(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?**

**Row 1**

**Has there been a structural change?**

Yes, an acquisition

**Name of organization(s) acquired, divested from, or merged with**

Trane Technologies acquired AL-KO Air Technology business, a division of AL-KO SE. We acquired three manufacturing sites — in Jettingen-Scheppach and Wittenberg, Germany and Taicang, China along with sales offices in Europe and Asia.

**Details of structural change(s), including completion dates**

Completed the integration in November 2022. Trane Technologies updated our baseline data to account for these new operations.

**C5.1b**

**(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?**

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	No	<Not Applicable>

**C5.1c**

**(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?**

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, location-based Scope 2, market-based	Trane Technologies approach is to revise base year emissions for any mergers/acquisitions or diversification.	Yes

**C5.2**

**(C5.2) Provide your base year and base year emissions.**

**Scope 1**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

315747

**Comment**

Trane Technologies updated the base year Scope 1 GHG to incorporate a revised natural gas heating value used to convert activity data into a standard unit of measure.

**Scope 2 (location-based)**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

156005

**Comment**

Trane Technologies made a minor adjustment to the 2019 location-based Scope to accommodate for adjustments to 2019 activity data.

**Scope 2 (market-based)**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

107075

**Comment**

Trane Technologies made a minor adjustment to the 2019 Scope 2 market-based baseline to accommodate for adjustments to 2019 activity data.

**Scope 3 category 1: Purchased goods and services**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

36499982

**Comment**

**Scope 3 category 2: Capital goods**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We do not have emissions from this category.

**Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

61815

**Comment**

**Scope 3 category 4: Upstream transportation and distribution**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

28491

**Comment**

**Scope 3 category 5: Waste generated in operations**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

12144

**Comment**

**Scope 3 category 6: Business travel**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

30340

**Comment**

**Scope 3 category 7: Employee commuting**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

51164

**Comment**

**Scope 3 category 8: Upstream leased assets**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

67000

**Comment**

**Scope 3 category 9: Downstream transportation and distribution**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

85472

**Comment**

**Scope 3 category 10: Processing of sold products**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We do not have emissions from this category

**Scope 3 category 11: Use of sold products**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

365000000

**Comment**

**Scope 3 category 12: End of life treatment of sold products**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

1863829

**Comment**

**Scope 3 category 13: Downstream leased assets**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We do not have emissions from this category

**Scope 3 category 14: Franchises**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We do not have emissions from this category

**Scope 3 category 15: Investments**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

We do not have emissions from this category

**Scope 3: Other (upstream)**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

No other upstream emissions

**Scope 3: Other (downstream)**

**Base year start**

January 1 2019

**Base year end**

December 31 2019

**Base year emissions (metric tons CO2e)**

0

**Comment**

No other downstream sources

**C5.3**

---

**(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

ISO 14064-1

The Climate Registry: General Reporting Protocol

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

The Greenhouse Gas Protocol: Scope 2 Guidance

US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources

**C6. Emissions data**

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**C6.1**

---

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Reporting year**

**Gross global Scope 1 emissions (metric tons CO2e)**

237639

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

Scope 1 carbon includes emissions from fossil fuel consumption for mobile and stationary sources along with refrigerant losses associated with HVAC equipment manufacturing and fugitive leaks from process/comfort cooling equipment.

**C6.2**

---

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We are reporting a Scope 2, market-based figure

**Comment**

Trane Technologies calculates annual, indirect Scope 2 GHG emissions for both location-based and market-based. Our calculations utilize the total electricity used to operate each facility within our GHG reporting framework. The electricity activity data for both sets of calculations includes the purchased electricity provided by our power suppliers, with adjustments incorporated to account for onsite photovoltaic electricity generation systems. The market-based calculations also accommodate Scope 2 GHG improvements realized through the purchase of 100% renewable/zero carbon electricity from some suppliers/locations and zero carbon electricity benefits from the retirement of Renewable Energy Credits. For location-based GHG emission factors, Trane Technologies utilizes the eGrid factors published by the US EPA for US locations and the annual electricity emissions factors available from the International Energy Agency (IEA). Market-based factors are obtained from our power suppliers where available or drawn from the various Residual Mix factor sets.

**C6.3**

---

**(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

**Reporting year**

**Scope 2, location-based**

124057

**Scope 2, market-based (if applicable)**

55708

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

**C6.4**

---

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**C6.5**

---

**(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**

Not relevant, calculated

**Emissions in reporting year (metric tons CO2e)**

34565483

**Emissions calculation methodology**

Spend-based method  
Average product method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

0

**Please explain**

We update the calculation for not relevant categories on a 3 year basis.

## Capital goods

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We did not purchase capital goods with upstream emissions in the reporting year.

## Fuel-and-energy-related activities (not included in Scope 1 or 2)

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO2e)

58538

### Emissions calculation methodology

Average product method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

We update the calculation for not relevant categories on a 3 year basis.

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

22611

### Emissions calculation methodology

Hybrid method  
Fuel-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Trane Technologies is a shipping partner of the EPA SmartWay (TM) program. SmartWay provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains. Freight emissions are classified into two parts: upstream and downstream. Upstream is about 25% of our annual expenditure and downstream is about 75% of our annual expenditure. Because SmartWay data is broken down by carrier we have used spend to determine relative upstream and downstream emissions. SmartWay data is delayed, therefore the number represented here is from the prior reporting period (FY 2021).

## Waste generated in operations

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO2e)

101767

### Emissions calculation methodology

Waste-type-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

Trane Technologies manages data of waste production in operations. These are categorized as hazardous waste and non-hazardous waste. For each waste category there are different disposal types. Using emissions factors from GHG Protocol Scope 3 guidance for Waste Generated in Operations for each disposal method and the total weight of each stream of disposal method we calculated total carbon emissions. We update the calculation for not relevant categories on a 3 year basis.

## Business travel

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

6313

### Emissions calculation methodology

Supplier-specific method  
Fuel-based method  
Distance-based method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain



## Employee commuting

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO2e)

51164

### Emissions calculation methodology

Average data method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

We have used the average data method as detailed in the Scope 3 calculation guidance for 'Employee Commuting'. We used the U.S. Census Bureau's annual American Community Survey 2011 on employee commuting. We have, for the lack of better information, assumed the same ratio for the rest of the world as well. We update the calculation for not relevant categories on a 3 year basis.

## Upstream leased assets

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

63141

### Emissions calculation methodology

Site-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

We have classified all our leased assets (office, warehouse, services) as Scope 3 based on the financial control approach. Using emissions factors taken from IEA (International Energy Agency) for average electricity consumption per square foot for a building type, we have calculated total emissions across all our facilities based on total area.

## Downstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

67883

### Emissions calculation methodology

Supplier-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

### Please explain

Trane Technologies is a shipping partner of the EPA SmartWay (TM) program. SmartWay provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains. Freight emissions are classified into two parts: upstream and downstream. Upstream is about 25% of our annual expenditure and downstream is about 75% of our annual expenditure. Because SmartWay data is broken down by carrier we have used spend to determine relative upstream and downstream emissions. SmartWay data is delayed, therefore the number represented here is from the prior reporting period (FY 2021).

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

Trane Technologies did not sell any intermediate products which required further processing in the reporting year.

## Use of sold products

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO2e)

303000000

### Emissions calculation methodology

Fuel-based method

Asset-specific method

Site-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

We calculate all the emissions from each product sold, for the lifespan of that product. Emissions include energy sources as well as refrigerants and are location-specific.

We have received third party assurance on this category, attached in section 10.1c.

## End of life treatment of sold products

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO2e)

1765043

### Emissions calculation methodology

Fuel-based method

Asset-specific method

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### Please explain

We update the calculation for not relevant categories on a 3 year basis.

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We do not have downstream leased assets which generate emissions.

## Franchises

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We do not have franchises.

## Investments

### Evaluation status

Not relevant, explanation provided

### Emissions in reporting year (metric tons CO2e)

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

### Please explain

We do not have investments with emissions associated.

**Other (upstream)**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

No other emissions.

**Other (downstream)**

**Evaluation status**

Not relevant, explanation provided

**Emissions in reporting year (metric tons CO2e)**

<Not Applicable>

**Emissions calculation methodology**

<Not Applicable>

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

<Not Applicable>

**Please explain**

No other emissions.

**C-CG6.6**

**(C-CG6.6) Does your organization assess the life cycle emissions of any of its products or services?**

	Assessment of life cycle emissions	Comment
Row 1	Yes	

**C-CG6.6a**

**(C-CG6.6a) Provide details of how your organization assesses the life cycle emissions of its products or services.**

	Products/services assessed	Life cycle stage(s) most commonly covered	Methodologies/standards/tools applied	Comment
Row 1	All existing and new products/services	Use stage	GHG Protocol Product Accounting & Reporting Standard	The majority of the carbon footprint of our products is from the use of energy, specifically, electricity. Emissions from refrigerants are approximately 10% of the total carbon footprint. We are addressing efficiency with a target of reducing our customers' emissions by 1 billion metric tons CO2e from business as usual by 2030. We have tracked product-use emissions reductions from energy and refrigerants since our 2020 commitment and will continue to do so through 2030. In the future, while we will continue our complete transition out of high GWP refrigerants by 2030, using the EcoWise brand to communicate our progress, we will also focus on helping customers reduce their emissions. A portfolio with world-class energy efficiency products will help us do that.

**C6.7**

**(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?**

No

**C6.10**

**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**

0.000018

**Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)**

293347

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

15991700000

**Scope 2 figure used**

Market-based

**% change from previous year**

20

**Direction of change**

Decreased

**Reason(s) for change**

Change in renewable energy consumption  
Other emissions reduction activities

**Please explain**

Trane Technologies saw an increase in renewable energy consumed, directly or indirectly, during 2022. We also reduced the amount of purchased electricity. Trane Technologies was also successful in our efforts to reduce refrigerant losses associated with HVAC equipment manufacturing.

**C7. Emissions breakdowns**

**C7.1**

**(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?**

No

**C7.2**

**(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.**

Country/area/region	Scope 1 emissions (metric tons CO2e)
North America	183069
Latin America (LATAM)	21072
Eastern Europe, Middle East, and Africa (EEMEA)	26172
Asia Pacific (or JAPA)	7370

**C7.3**

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By business division

**C7.3a**

**(C7.3a) Break down your total gross global Scope 1 emissions by business division.**

Business division	Scope 1 emissions (metric ton CO2e)
Trane HVAC (Commercial)	133028
Trane HVAC (Residential)	74146
Thermo King (Transport)	28804
Enterprise (corporate, engineering centers)	1661

**C7.5**

**(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.**

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
North America	86123	20485
Latin America (LATAM)	13954	12386
Europe, Middle East and Africa (EMEA)	3809	704
Asia Pacific (or JAPA)	20082	22133

**C7.6**

**(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.**

By business division

**C7.6a**

**(C7.6a) Break down your total gross global Scope 2 emissions by business division.**

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Trane HVAC (Commercial)	68360	42357
Trane HVAC (Residential)	32288	2838
Thermo King (Transport)	13232	923
Enterprise (corporate, engineering centers)	10177	9590

**C7.7**

**(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?**

No

**C7.9**

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Decreased

**C7.9a**

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	7331	Decreased	12	Trane Technologies reduced market-based Scope 2 GHG by 7,331 metric tons (12% reduction) for 2022 vs 2021. The change amount is 2022 Scope 2 GHG - 2021 Scope 2 GHG. The % change is calculated as ((2022 Scope 2 GHG / 2021 Scope 2 GHG) - 1) X 100%. For 2022, Trane Technologies increased utilization of zero carbon electricity and acquired and retired additional renewable energy credits compared to previous years.
Other emissions reduction activities	30714	Decreased	21	Trane Technologies reduced refrigerant losses from our manufacturing operations and shifted at some locations to use refrigerants with lower global warming potentials. The change amount is 2022 Scope 1 refrigerant GHG - 2021 Scope 2 refrigerant GHG. The % change is calculated as ((2022 Scope 1 Refrigerants GHG / 2021 Scope 1 Refrigerants GHG) - 1) X 100%
Divestment	0	No change	0	No divestments.
Acquisitions	0	No change	0	Trane Technologies acquired AL-KO Air Technology business, however, we updated our baseline to account for these new operations, therefore there is no change associated with acquisitions from our previous year.
Mergers	0	No change	0	No mergers.
Change in output	0	No change	0	No material impacts related to manufacturing output.
Change in methodology	0	No change	0	No material changes made in calculation methodologies.
Change in boundary	0	No change	0	No changes in company boundary details.
Change in physical operating conditions	0	No change	0	No material changes in physical operating conditions.
Unidentified	0	No change	0	No unidentified changes.
Other	0	No change	0	No other material changes.

## C7.9b

---

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Market-based

## C-CG7.10

---

**(C-CG7.10) How do your total Scope 3 emissions for the reporting year compare to those of the previous reporting year?**

Decreased

## C-CG7.10a

---

**(C-CG7.10a) For each Scope 3 category calculated in C6.5, specify how your emissions compare to the previous year and identify the reason for any change.**

### **Purchased goods and services**

**Direction of change**

No change

**Primary reason for change**

<Not Applicable>

**Change in emissions in this category (metric tons CO2e)**

<Not Applicable>

**% change in emissions in this category**

<Not Applicable>

**Please explain**

For not-relevant categories, we will calculate every 3 years and we have had no operational changes that would lead to any significant changes.

### **Fuel and energy-related activities (not included in Scopes 1 or 2)**

**Direction of change**

No change

**Primary reason for change**

<Not Applicable>

**Change in emissions in this category (metric tons CO2e)**

<Not Applicable>

**% change in emissions in this category**

<Not Applicable>

**Please explain**

For not-relevant categories, we will calculate every 3 years and we have had no operational changes that would lead to any significant changes.

### **Upstream transportation and distribution**

**Direction of change**

Decreased

**Primary reason for change**

Change in supplier or distributor

**Change in emissions in this category (metric tons CO2e)**

1950

**% change in emissions in this category**

8

**Please explain**

Trane Technologies is a shipping partner of the EPA SmartWay (TM) program. SmartWay provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains. Freight emissions are classified into two parts: upstream and downstream. Upstream is about 25% of our annual expenditure and downstream is about 75% of our annual expenditure. Because SmartWay data is broken down by carrier we have used spend to determine relative upstream and downstream emissions. SmartWay data is delayed therefore, the number represented here is from the prior reporting period (FY 2021).

## Waste generated in operations

### Direction of change

No change

### Primary reason for change

<Not Applicable>

### Change in emissions in this category (metric tons CO2e)

<Not Applicable>

### % change in emissions in this category

<Not Applicable>

### Please explain

For not-relevant categories, we will calculate every 3 years and we have had no operational changes that would lead to any significant changes.

## Business travel

### Direction of change

Increased

### Primary reason for change

Other, please specify (Increased travel )

### Change in emissions in this category (metric tons CO2e)

4418

### % change in emissions in this category

70

### Please explain

Business travel was extremely low in 2021 and 2020 due to COVID, making the year-over-year comparison not reflective of normal operations.

## Employee commuting

### Direction of change

No change

### Primary reason for change

<Not Applicable>

### Change in emissions in this category (metric tons CO2e)

<Not Applicable>

### % change in emissions in this category

<Not Applicable>

### Please explain

For not-relevant categories, we will calculate every 3 years and we have had no operational changes that would lead to any significant changes.

## Upstream leased assets

### Direction of change

No change

### Primary reason for change

<Not Applicable>

### Change in emissions in this category (metric tons CO2e)

<Not Applicable>

### % change in emissions in this category

<Not Applicable>

### Please explain

We had no change in our leased asset inventory from 2021.

## Downstream transportation and distribution

### Direction of change

Decreased

### Primary reason for change

Change in supplier or distributor

### Change in emissions in this category (metric tons CO2e)

5851

### % change in emissions in this category

8

### Please explain

Trane Technologies is a shipping partner of the EPA SmartWay (TM) program. SmartWay provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains. Freight emissions are classified into two parts: upstream and downstream. Upstream is about 25% of our annual expenditure and downstream is about 75% of our annual expenditure. Because SmartWay data is broken down by carrier we have used spend to determine relative upstream and downstream emissions. SmartWay data is delayed, therefore the number represented here is from the prior reporting period (FY 2021).

## Use of sold products

### Direction of change

Decreased

### Primary reason for change

Other emissions reduction activities

### Change in emissions in this category (metric tons CO2e)

63000000

### % change in emissions in this category

17.2

### Please explain

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 moves refrigerated cargo. To achieve our Gigaton Challenge, we are taking action to reduce our customer carbon emissions from the use of our products and services from a 2019 baseline through 2030. Two levers that aided in this emission reduction were high efficiency equipment sales and sales of equipment with lower GWP.

## End-of-life treatment of sold products

### Direction of change

No change

### Primary reason for change

<Not Applicable>

### Change in emissions in this category (metric tons CO2e)

<Not Applicable>

### % change in emissions in this category

<Not Applicable>

### Please explain

For not-relevant categories, we will calculate every 3 years and we have had no operational changes that would lead to any significant changes.

## C8. Energy

### C8.1

#### (C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

### C8.2

#### (C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

### C8.2a

#### (C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	20	544014	544034
Consumption of purchased or acquired electricity	<Not Applicable>	167883	136953	304836
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	3389	<Not Applicable>	3389
Total energy consumption	<Not Applicable>	171291	680966	852258

### C8.2b



**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

**C8.2c**

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Sustainable biomass**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

20

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

Minor consumption of biofuels in 2022.

**Other biomass**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

No direct consumption of other biomass in 2022.

**Other renewable fuels (e.g. renewable hydrogen)**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

No direct consumption of other renewables in 2022.

**Coal**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

No direct consumption of coal in 2022.

**Oil**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

305414

**MWh fuel consumed for self-generation of electricity**

<Not Applicable>

**MWh fuel consumed for self-generation of heat**

<Not Applicable>

**MWh fuel consumed for self-generation of steam**

<Not Applicable>

**MWh fuel consumed for self-generation of cooling**

<Not Applicable>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

<Not Applicable>

**Comment**

Combined liquid fuel consumption for aviation fuel, diesel, and gasoline.

**Gas****Heating value**

HHV

**Total fuel MWh consumed by the organization**

238600

**MWh fuel consumed for self-generation of electricity**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of heat**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

&lt;Not Applicable&gt;

**Comment**

Combined gaseous fuel consumption for propane and natural gas.

**Other non-renewable fuels (e.g. non-renewable hydrogen)****Heating value**

HHV

**Total fuel MWh consumed by the organization**

0

**MWh fuel consumed for self-generation of electricity**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of heat**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

&lt;Not Applicable&gt;

**Comment**

No direct usage of non-renewable hydrogen.

**Total fuel****Heating value**

HHV

**Total fuel MWh consumed by the organization**

544034

**MWh fuel consumed for self-generation of electricity**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of heat**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of steam**

&lt;Not Applicable&gt;

**MWh fuel consumed for self-generation of cooling**

&lt;Not Applicable&gt;

**MWh fuel consumed for self- cogeneration or self-trigeneration**

&lt;Not Applicable&gt;

**Comment**

Total bio and fossil fuels consumption.

**C8.2d****(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	7669	5483	7669	5483
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2g

---

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

**Country/area**

Brazil

**Consumption of purchased electricity (MWh)**

1577.9

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

1577.9

---

**Country/area**

Canada

**Consumption of purchased electricity (MWh)**

569.1

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

569.1

---

**Country/area**

China

**Consumption of purchased electricity (MWh)**

26158.65

**Consumption of self-generated electricity (MWh)**

4567.41

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

30726.06

---

**Country/area**

Czechia

**Consumption of purchased electricity (MWh)**

3787.57

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

---

**Country/area**

France

**Consumption of purchased electricity (MWh)**

8371.11

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

8371.11

---

**Country/area**

Germany

**Consumption of purchased electricity (MWh)**

869.31

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

869.31

---

**Country/area**

India

**Consumption of purchased electricity (MWh)**

602.59

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

602.59

---

**Country/area**

Ireland

**Consumption of purchased electricity (MWh)**

4336.11

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

4336.11

---

**Country/area**

Italy

**Consumption of purchased electricity (MWh)**

544.9

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

544.9

---

**Country/area**

Mexico

**Consumption of purchased electricity (MWh)**

22908.26

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

22908.26

---

**Country/area**

Netherlands

**Consumption of purchased electricity (MWh)**

92.66

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

92.66

---

**Country/area**

Spain

**Consumption of purchased electricity (MWh)**

783.76

**Consumption of self-generated electricity (MWh)**

0

**Is this electricity consumption excluded from your RE100 commitment?**

No

**Consumption of purchased heat, steam, and cooling (MWh)**

0

**Consumption of self-generated heat, steam, and cooling (MWh)**

0

**Total non-fuel energy consumption (MWh) [Auto-calculated]**

783.76

---

**Country/area**

Sweden

**Consumption of purchased electricity (MWh)**

665.25

**Consumption of self-generated electricity (MWh)**

0

---

Is this electricity consumption excluded from your RE100 commitment?

No

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

665.25

---

Country/area

Thailand

Consumption of purchased electricity (MWh)

1436

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

1436

---

Country/area

United States of America

Consumption of purchased electricity (MWh)

228481.99

Consumption of self-generated electricity (MWh)

2094.22

Is this electricity consumption excluded from your RE100 commitment?

No

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

230576.21

---

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of purchased electricity (MWh)

409.81

Consumption of self-generated electricity (MWh)

0

Is this electricity consumption excluded from your RE100 commitment?

No

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

409.81

---

## C8.2h

---

(C8.2h) Provide details of your organization's renewable electricity purchases in the reporting year by country/area.

Country/area of consumption of purchased renewable electricity

Czechia

Sourcing method

Unbundled procurement of Energy Attribute Certificates (EACs)

Renewable electricity technology type

---

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**  
3787.57

**Tracking instrument used**  
Contract

**Country/area of origin (generation) of purchased renewable electricity**  
France

**Are you able to report the commissioning or re-powering year of the energy generation facility?**  
Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**  
2021

**Vintage of the renewable energy/attribute (i.e. year of generation)**  
2022

**Supply arrangement start year**  
2021

**Additional, voluntary label associated with purchased renewable electricity**  
No additional, voluntary label

**Comment**  
Guarantees of Origin associated with wind related renewable energy located in France.

---

**Country/area of consumption of purchased renewable electricity**  
Italy

**Sourcing method**  
Purchase from an on-site installation owned by a third party (on-site PPA)

**Renewable electricity technology type**  
Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**  
544.9

**Tracking instrument used**  
Contract

**Country/area of origin (generation) of purchased renewable electricity**  
Italy

**Are you able to report the commissioning or re-powering year of the energy generation facility?**  
No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**  
<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**  
2022

**Supply arrangement start year**

**Additional, voluntary label associated with purchased renewable electricity**  
Other, please specify

**Comment**  
Guarantees of Origin associated with wind related renewable energy.

---

**Country/area of consumption of purchased renewable electricity**  
Ireland

**Sourcing method**  
Purchase from an on-site installation owned by a third party (on-site PPA)

**Renewable electricity technology type**  
Renewable electricity mix, please specify (Energia (the electricity provider) indicates a mix of 100% renewable generation activities that varies by month and year. )

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**  
4336.11

**Tracking instrument used**  
Other, please specify (Electricity provided by the local power supplier with zero carbon attributes documented on the monthly invoice.)

**Country/area of origin (generation) of purchased renewable electricity**  
Ireland

**Are you able to report the commissioning or re-powering year of the energy generation facility?**  
No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or re-powering)**  
<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**  
2021

---



**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

**Comment**

Energia (the electricity provider) indicates a mix of 100% renewable generation activities that varies by month and year.

---

**Country/area of consumption of purchased renewable electricity**

Spain

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

783.76

**Tracking instrument used**

Contract

**Country/area of origin (generation) of purchased renewable electricity**

Spain

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

&lt;Not Applicable&gt;

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Other, please specify

**Comment**

Guarantees of Origin provided by the power supplier.

---

**Country/area of consumption of purchased renewable electricity**

United States of America

**Sourcing method**

Financial (virtual) power purchase agreement (VPPA)

**Renewable electricity technology type**

Wind

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

103283

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of purchased renewable electricity**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2019

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2019

**Additional, voluntary label associated with purchased renewable electricity**

Green-e

**Comment**

Virtual power purchase agreement.

---

**Country/area of consumption of purchased renewable electricity**

United States of America

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

3610.47

**Tracking instrument used**

US-REC

**Country/area of origin (generation) of purchased renewable electricity**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2021

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Green-e

**Comment**

Purchase of unbundled RECs.

---

**Country/area of consumption of purchased renewable electricity**

United States of America

**Sourcing method**

Project-specific contract with an electricity supplier

**Renewable electricity technology type**

Solar

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

1627.2

**Tracking instrument used**

Contract

**Country/area of origin (generation) of purchased renewable electricity**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

Yes

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

2019

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

2021

**Additional, voluntary label associated with purchased renewable electricity**

Green-e

**Comment**

Energy shares with the community solar farm.

---

**Country/area of consumption of purchased renewable electricity**

United States of America

**Sourcing method**

Unbundled procurement of Energy Attribute Certificates (EACs)

**Renewable electricity technology type**

Renewable electricity mix, please specify (Mix of wind and solar RECs. )

**Renewable electricity consumed via selected sourcing method in the reporting year (MWh)**

47931.35

**Tracking instrument used**

Contract

**Country/area of origin (generation) of purchased renewable electricity**

United States of America

**Are you able to report the commissioning or re-powering year of the energy generation facility?**

No

**Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)**

<Not Applicable>

**Vintage of the renewable energy/attribute (i.e. year of generation)**

2022

**Supply arrangement start year**

---

2020

**Additional, voluntary label associated with purchased renewable electricity**

Green-e

**Comment**

Arrange of power supplier to provide RECs equal to the amount of electricity purchased.

---

**C8.2j**

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**(C8.2j) Provide details of your organization's renewable electricity generation by country/area in the reporting year.**

**Country/area of generation**

China

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

5.5

**Total renewable electricity generated by this facility in the reporting year (MWh)**

5237.84

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

4567.41

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

Onsite PV/solar electricity generation units.

---

**Country/area of generation**

United States of America

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

3.34

**Total renewable electricity generated by this facility in the reporting year (MWh)**

3569.22

**Renewable electricity consumed by your organization from this facility in the reporting year (MWh)**

1952.91

**Energy attribute certificates issued for this generation**

No

**Type of energy attribute certificate**

<Not Applicable>

**Comment**

Onsite PV/solar electricity generation units.

---

**C8.2k**

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**(C8.2k) Describe how your organization's renewable electricity sourcing strategy directly or indirectly contributes to bringing new capacity into the grid in the countries/areas in which you operate.**

Our renewable electricity sourcing strategy includes a combination of on-site and off-site projects. At select company sites where site conditions have been deemed appropriate, Trane Technologies has installed on-site solar photovoltaic projects that reduce our dependence on traditional grid-electricity. Additionally, in 2017 we entered into a power purchase agreement with a renewable energy developer that enabled the construction of a large scale off-site wind energy project, which began operations in 2019, that materially reduces our Scope 2 electricity-related emissions. During 2022, we entered into a second power purchase agreement that will begin generation in 2025. We continue to evaluate additional opportunities for both on-site and off-site renewable energy projects and will continue to advance our electricity sourcing strategy in a manner that will continue to enable new renewable energy capacity to be deployed onto the electricity grid. During 2022, we partnered with renewable energy developers in China to purchase significant quantities of green electricity for two key factories. In addition, Trane Technologies has contracts in place for key locations to directly receive electricity generated by 3rd parties using 100% renewable systems. Where reasonable, we are paying the higher price per KWhr to acquire the zero-carbon electricity. This supports further greening of the power grid in locations where we operate.

**C8.2l**

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**(C8.2l) In the reporting year, has your organization faced any challenges to sourcing renewable electricity?**

	Challenges to sourcing renewable electricity	Challenges faced by your organization which were not country/area-specific
Row 1	Yes, in specific countries/areas in which we operate	<Not Applicable>

**C8.2m**

**(C8.2m) Provide details of the country/area-specific challenges to sourcing renewable electricity faced by your organization in the reporting year.**

Country/area	Reason(s) why it was challenging to source renewable electricity within selected country/area	Provide additional details of the barriers faced within this country/area
United States of America	Inability to buy Energy Attribute Certificates (EACs) in small quantities	Trane Technologies has faced significantly higher prices when we purchase small quantities of EACs. We also find ourselves as second tier partners to invest in new renewable projects. The developers are focused on the companies who seek extremely large EAC allotments.

**C-CG8.5**

**(C-CG8.5) Does your organization measure the efficiency of any of its products or services?**

	Measurement of product/service efficiency	Comment
Row 1	Yes	The majority of the carbon footprint of our products is from the use of energy, specifically, electricity. Emissions from refrigerants are approximately 10% of the total carbon footprint. We are addressing efficiency with a target of reducing our customers' emissions by 1 billion metric tons CO2e by 2030. We have tracked product-use emissions reductions from energy and refrigerants against our 2020 commitment and will continue to do so through 2030. In the future, while we continue our transition away from high GWP refrigerants by 2030, using the EcoWise brand to communicate our progress, we will also focus on helping customers reduce their emissions. A portfolio with world-class energy efficiency products will help us do that.

**C-CG8.5a**

**(C-CG8.5a) Provide details of the metrics used to measure the efficiency of your organization's products or services.**

**Category of product or service**

Heating & cooling systems

**Product or service (optional)**

Heating & cooling systems rated above min standard efficiency with next generation, low GWP refrigerant: Residential air conditioning units are rated according to their seasonal energy efficiency ratio (SEER). SEER indicates the relative amount of energy needed to provide a specific cooling output. Commercial systems are rated according to ASHRAE 90.1 standards.  
Transport Refrigeration Systems with higher efficiency & next gen refrigerant.

**% of revenue from this product or service in the reporting year**

38

**Efficiency figure in the reporting year**

93

**Metric numerator**

tCO2e

**Metric denominator**

metric ton of product

**Comment**

93M refers to the product emissions (emissions per cooling ton) savings for 2022

**C9. Additional metrics**

**C9.1**

**(C9.1) Provide any additional climate-related metrics relevant to your business.**

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	In 2022, the approximately \$211 million we invested in sustainability-driven research and development centered on: >Product and system-level improvements including innovations designed to increase energy efficiency. >Developing and implementing low-GWP refrigerants. >Reducing material content in products. > Designing products for circularity.

C-CG9.6a

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**(C-CG9.6a) Provide details of your organization's investments in low-carbon R&D for capital goods products and services over the last three years.**

**Technology area**

Other, please specify (R&D spend associated to innovating and deploying low GWP refrigerants for our refrigerant-bearing product portfolio, decarbonization through electrification, and efficient product offerings. )

**Stage of development in the reporting year**

Large scale commercial deployment

**Average % of total R&D investment over the last 3 years**

100

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

211000000

**Average % of total R&D investment planned over the next 5 years**

100

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

Our broad portfolio of energy-efficient and low-emission products reflects our commitment to decarbonization and our determination to deliver innovative solutions to our customers. Older products may contain high-global warming potential (GWP) refrigerants, require more energy for operations, or operate primarily on fossil fuels. These products increase our downstream emissions and our customers' emissions, which can negatively impact the climate. Furthermore, older products may cost our customers more to operate, which leaves less capital for reinvestment into human capital development and business operations, among other areas. We are committed to enhancing our customers' operations and mitigating the effects of climate change with industry-leading products. We take action to help our customers decarbonize through electrification, the use of low-GWP refrigerants, and providing efficient product solutions. We do not breakdown the % of R&D spend for different technology areas.

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**Technology area**

Control systems

**Stage of development in the reporting year**

Large scale commercial deployment

**Average % of total R&D investment over the last 3 years**

100

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

211000000

**Average % of total R&D investment planned over the next 5 years**

100

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

In 2022, we began to develop new artificial intelligence (AI)-based Trane® Commercial Digital Services offering to reduce energy consumption and carbon emissions in buildings without compromising human comfort. Trane controllers send real-time building data to a cloud-based AI system, creating a thermodynamic model of the building. Using predictive and self-adapting AI models, Trane controllers receive information, which adapts the heating, ventilation, and air conditioning (HVAC) system behavior in a way that simultaneously optimizes energy consumption and comfort levels in the building while reducing emissions and equipment wear. We piloted an AI-based solution with one of the largest plasma therapy companies in the United States. The pilot ran at five blood plasma donation and collection facilities, resulting in an average reduction of HVAC utility spending (natural gas and electricity) of approximately 18% and emissions reductions of up to 37%. The building optimization pilot helped the plasma-based therapy company create healthy spaces through carbon emission reductions and optimized comfort. With new HVAC savings, our customers can reinvest in life-saving technology. Innovative AI solutions are one of many ways Trane Technologies helps customers reduce emissions and improve efficiencies. These projects contribute directly to our Gigaton Challenge and help us pilot technology to create smart, sustainable cities. We do not breakdown the % of R&D spend for different technology areas.

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**Technology area**

Other, please specify (Cooling cart- food storage using passive cooling )

**Stage of development in the reporting year**

Applied research and development

**Average % of total R&D investment over the last 3 years**

100

**R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)**

211000000

**Average % of total R&D investment planned over the next 5 years**

100

**Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan**

In 2022, teams in India, China, Vietnam, the United States and Belgium worked on a solution to reduce food loss for street vendors in developing economies. The result of this collaboration is the cooling cart — a mobile pushcart with a canopy using passive cooling technology that helps street vendors keep fruits and vegetables fresh for longer periods, which significantly reduces food spoilage at the point of sale to the consumer. Throughout the design and validation stage, the design team consulted directly with local street vendors, community representatives, students, and government officials to understand street vendors' social and economic challenges. Through an iterative design and stakeholder engagement process, the teams developed a prototype that can reduce temperatures below the food cart canopy by up to 10 degrees. The cooling effect can help vendors extend the life of produce by several days. With more time to sell food, street vendors can reduce food loss while improving their net income. The cooling cart received promising field-testing results and positive feedback from street vendors in Kolar, India. Trane Technologies continues to partner with external stakeholders to scale this solution to more locations as part of our commitment to reducing food waste and creating Opportunity for All. We do not breakdown the % of R&D spend for different technology areas.

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**C10. Verification**

**C10.1**

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

**C10.1a**

**(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.**

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Trane Technologies - CY2022 EHS 3rd Party Assurance Statement.pdf

**Page/ section reference**

Pages 1 - 4

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

**C10.1b**

**(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.**

**Scope 2 approach**

Scope 2 market-based

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

**Page/ section reference**

Pages 1 - 4

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

**C10.1c**

**(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.**

**Scope 3 category**

Scope 3: Business travel  
 Scope 3: Use of sold products

**Verification or assurance cycle in place**

Annual process

**Status in the current reporting year**

Complete

**Type of verification or assurance**

Limited assurance

**Attach the statement**

Trane Technologies - CY2022 EHS 3rd Party Assurance Statement.pdf

**Page/section reference**

1-4

**Relevant standard**

ISO14064-3

**Proportion of reported emissions verified (%)**

100

**C10.2**

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

Yes

**C10.2a**

**(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?**

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C7. Emissions breakdown	Other, please specify (Verification of 2021 Scope 1, 2, & 3 GHG emissions, energy consumption, and other key sustainability metrics)	ISO 14064	Trane Technologies engages a licensed and qualified external consultant to complete a data verification and assurance assessment of our GHG emissions data and other supporting metrics. The verification of the Scope 1 (direct), Scope 2 (electricity indirect) and Scope 3 (other indirect) GHG data is conducted in accordance with ISO 14064-2:2006, "Specification with Guidance for Validation and Verification of Greenhouse Gas Assertions" to provided limited assurance that GHG emissions data as presented in the Assertion have been prepared in conformance with the World Resources Institute / World Business Council for Sustainable Development Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised edition (hereafter referred to as the WRI/WBCSD GHG Protocol). The consultant conducted a limited assurance assessment that involved the following tasks as part of the evidence gathering process for this verification engagement: 1) review of organizational boundaries, operational boundaries, and data management processes, 2) interviews with relevant staff of the organization responsible for managing data and records, 3) completing a strategic assessment/risk analysis of each data set to determine an adequate sample, and 4) verifying data and records at an aggregated level for Calendar year 2022.
C6. Emissions data	Other, please specify (GHG emissions factors, renewable energy credits, and materials physical properties)	ISO 14064	As part of the 2022 GHG data verification effort, the external consultant completed a detailed review of the emission factors used for GHG calculations and the physical properties associated with refrigerants and fossil fuels included in Scope 1 calculations. The consultant is also reviewing the backup records to validate the renewable energy credits by location.

**C11. Carbon pricing**

**C11.1**

**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

**C11.2**

**(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?**

No



## C11.3

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### (C11.3) Does your organization use an internal price on carbon?

Yes

## C11.3a

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### (C11.3a) Provide details of how your organization uses an internal price on carbon.

#### Type of internal carbon price

Shadow price

#### How the price is determined

Price/cost of voluntary carbon offset credits

Benchmarking against peers

#### Objective(s) for implementing this internal carbon price

Drive energy efficiency

Drive low-carbon investment

#### Scope(s) covered

Scope 1

Scope 2

#### Pricing approach used – spatial variance

Uniform

#### Pricing approach used – temporal variance

Static

#### Indicate how you expect the price to change over time

<Not Applicable>

#### Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

16

#### Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

16

#### Business decision-making processes this internal carbon price is applied to

Capital expenditure

Product and R&D

Opportunity management

#### Mandatory enforcement of this internal carbon price within these business decision-making processes

No

#### Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

We use an internal carbon shadow price to perform scenario assessments for climate transition planning. For example, for climate scenario assessment we chose to assess the risk from potential exposure to regulations and taxation due to advances in environmental and carbon policies as a relevant risk for analysis. Under the global energy transition to a lower-emissions economy, jurisdictions across the world are increasing scrutiny around emissions reporting and environmental regulation. This may require our products to meet certain requirements for emissions, potentially increasing manufacturing and associated reporting costs for select jurisdictions. Additionally, many jurisdictions around the world have instituted or considered instituting pricing carbon emissions. As an emitter of GHGs and manufacturer of products that emit GHGs, using a shadow price to assess, Trane Technologies faces risks of increases costs for operating across its large geographic footprint.

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## C12. Engagement

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### C12.1

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#### (C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

### C12.1a

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**(C12.1a) Provide details of your climate-related supplier engagement strategy.**

**Type of engagement**

Engagement & incentivization (changing supplier behavior)

**Details of engagement**

Run an engagement campaign to educate suppliers about climate change

**% of suppliers by number**

1

**% total procurement spend (direct and indirect)**

60

**% of supplier-related Scope 3 emissions as reported in C6.5**

60

**Rationale for the coverage of your engagement**

For 2022, 100% of our Preferred Supplier Base was in-scope for this engagement. Our Preferred Supplier Program is a key initiative to identify and engage world-class suppliers. This program is for our most strategic partners and provides them with growth opportunities while helping us build a supply base that aligns with our core values. Preferred suppliers must meet several criteria in order to keep their status, one of which is to report on requested sustainability metrics annually.

We chose this grouping of suppliers because this offers full category coverage, meaning key suppliers from each sourcing category are representing in the Preferred Supplier program for both direct and indirect suppliers. This engagement includes 60% of our total global spend and spans across all our regions of operation. Therefore, by engaging with the suppliers in the preferred supplier program it ensures the impact of this initiative for both ourselves and our suppliers is maximized.

**Impact of engagement, including measures of success**

We believe the reduction of energy usage and GHG emissions through our supplier engagement as it demonstrates that the supplier is committed to our Supplier Sustainability Expectations which requires annual reporting of energy, waste, water and carbon data including usage and progression of goals. In order to be a Preferred Supplier, a supplier must report on these metrics. Preferred suppliers have more opportunity to grow their business with Trane Technologies and we believe that long-term value partners must demonstrate their commitment to reducing their climate impact. We set a threshold of at least a 1% y-o-y increase in the % of procurement spend covered by this engagement. We successfully achieved a 1.5% increase in the % of spend covered in 2022.

We also measure the success of this supplier engagement program through the increase in GHG and energy reduction commitments from our supply base from year over year responses. We also evaluate when a supplier had not previously had a climate or energy commitment and then shows progression by establishing one. We have seen an increase in our supplier engagement through this program.

**Comment**

**C12.1b**

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement & Details of engagement**

Education/information sharing	Run an engagement campaign to education customers about your climate change performance and strategy
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**% of customers by number**

100

**% of customer - related Scope 3 emissions as reported in C6.5**

100

**Please explain the rationale for selecting this group of customers and scope of engagement**

All customers are in scope for this engagement because our Gigaton Challenge aims to reduce our full customer carbon footprint by 1 gigaton of emissions. We do this by calculating emissions from all products sold within the reporting year, so every customer is crucial to success of the engagement.

**Impact of engagement, including measures of success**

Trane Technologies' "Gigaton Challenge" is our commitment to reduce one gigaton of emissions from our customer carbon footprint. Every year, Trane Technologies calculates the reduction in product emissions and emissions avoided through services for that year. Our goal is to have the cumulative annual contributions add up to 1 gigaton of GHG emissions (1 billion mtCO2e) by 2030. Our calculations cover our complete product portfolio of over a million configured and non-configured products. We made the conscious decision to set 2019 as our baseline year, rather than including our emissions reductions from the past 5 or 10 years, because the planet needs our industry to change now. Our ambition is to make a significant impact as quickly as possible. At the conclusion of 2022, we had reduced our customer carbon footprint by 93 million mtCO2e since our baseline year of 2019, reflecting a successful measurement of our engagement.

**C12.2**

**(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?**

Yes, climate-related requirements are included in our supplier contracts

**C12.2a**

**(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.**

**Climate-related requirement**

Climate-related disclosure through a non-public platform

**Description of this climate related requirement**

Our contract, which includes our Business Partner Code of Conduct as well as our Supplier Sustainability Expectations has specific ESG requirements outlined. All Preferred Suppliers are required to meet preferred supplier requirements which include annual sustainability data reporting. We manage supplier sustainability data through Benchmark ESG/GensuiteTM, a reporting platform that provides visibility into supplier performance against our standards, including reporting on energy and GHG performance. At the end of 2022, 100% of preferred suppliers were enrolled in the program.

**% suppliers by procurement spend that have to comply with this climate-related requirement**

60

**% suppliers by procurement spend in compliance with this climate-related requirement**

**Mechanisms for monitoring compliance with this climate-related requirement**

Supplier self-assessment  
Supplier scorecard or rating

**Response to supplier non-compliance with this climate-related requirement**

Retain and engage

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**C12.3**

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**(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?**

**Row 1**

**External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

Yes, we engage directly with policy makers  
Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

**Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?**

Yes

**Attach commitment or position statement(s)**

Net Zero Pathway pg. 23  
2022-ESG-Report.pdf

**Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan**

Our management's Annual Incentive Matrix remuneration program includes environmental, sustainability and workforce diversity goals, in addition to financial targets. We have both a Scope 1 and 2 GHG reduction target as well as a Scope 3 GHG reduction target.

**Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

**Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate**

<Not Applicable>

**C12.3a**

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**(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?**

**Specify the policy, law, or regulation on which your organization is engaging with policy makers**

- US federal buildings procurement changes to incorporate the social cost of carbon
- Various US state efforts to update its energy codes and create an energy stretch code (WA, CO, CA, NY)
- Various state legislation and national regulation to phase down HFCs (CA, WA, CO, NJ, NY, FL, NC, Environment Climate Change Canada, and U.S. EPA).
- ASHRAE building decarbonization task force and the creation of a new carbon standard
- Implementation of US federal and state incentives
- EU Building Performance Directive revisions and F-Gas revisions

**Category of policy, law, or regulation that may impact the climate**

Low-carbon products and services

**Focus area of policy, law, or regulation that may impact the climate**

Energy efficiency requirements

Low-carbon innovation and R&D

**Policy, law, or regulation geographic coverage**

Global

**Country/area/region the policy, law, or regulation applies to**

<Not Applicable>

**Your organization's position on the policy, law, or regulation**

Support with no exceptions

**Description of engagement with policy makers**

Drafted legislation and regulation.

Educated policymakers and staff

Helped secure support and active engagement of the rest of industry

Provided technical substantiation to policy makers

**Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation**

<Not Applicable>

**Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

**Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?**

Yes, enabling transitions to products with a low carbon footprint is essential to strategy.

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**C12.3b**

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**(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.**

**Trade association**

Other, please specify (Business Council for Sustainable Energy )

**Is your organization's position on climate change policy consistent with theirs?**

Consistent

**Has your organization attempted to influence their position in the reporting year?**

Yes, we publicly promoted their current position

**Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position**

The Business Council for Sustainable Energy (BCSE) is a coalition of companies and trade associations from the energy efficiency, natural gas and renewable energy sectors, and also includes independent electric power producers, investor-owned utilities, public power, commercial end-users and project developers and service providers for environmental markets. Industry leaders from the energy efficiency, renewable energy and natural gas sectors came together in 1992 to form a coalition dedicated to creating a more secure and sustainable energy future. Today, these sectors continue to work together to meet U.S. energy needs and revitalize the U.S. economy. The Business Council for Sustainable Energy works to: Enable policies that accelerate the deployment of energy efficiency, renewable energy resources and natural gas; Implement cost-effective programs and policies that recognize the environmental attributes of energy sources; Increase the efficiency of the economy and improve energy security; Encourage market-based initiatives for energy and environmental policies.

**Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)**

0

**Describe the aim of your organization's funding**

<Not Applicable>

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**Trade association**

Other, please specify (World Business Council for Sustainable Development )

**Is your organization's position on climate change policy consistent with theirs?**

Consistent

**Has your organization attempted to influence their position in the reporting year?**

Yes, we publicly promoted their current position

**Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position**

The World Business Council for Sustainable Development (WBCSD) is comprised of over 200 of the world's leading sustainable businesses working collectively to accelerate the system transformations needed for a net zero, nature positive, and more equitable future by engaging executives and sustainability leaders from business and elsewhere to share practical insights on the obstacles and opportunities we currently face in tackling the integrated climate, nature and inequality sustainability challenge; by co-developing "how-to" CEO-guides from these insights; by providing science-based target guidance including standards and protocols; and by developing tools and platforms to help leading businesses in sustainability drive integrated actions to tackle climate, nature and inequality challenges across sectors and geographical regions.

**Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)**

0

**Describe the aim of your organization's funding**

<Not Applicable>

**Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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**C12.4**

**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

**Publication**

In mainstream reports, incorporating the TCFD recommendations

**Status**

Complete

**Attach the document**

2022-ESG-Report.pdf

**Page/Section reference**

Whole report

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets

**Comment**

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C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	RE100 Task Force on Climate-related Financial Disclosures (TCFD) World Business Council for Sustainable Development (WBCSD)	We are members of WBCSD and we support through technical and practical device around goal development and policy positions, including the global stock take work. We incorporate the TCFD recommendations into our mainstream reporting. We committed to RE100 by 2040 and are committed to other initiatives by The Climate Group as well.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, executive management-level responsibility	Biodiversity is identified as an ESG material issue based on the Trane Technologies Materiality Assessment conducted in 2022. Material issues tied to the sustainability strategy of the company are managed by the Chief Technology and Sustainability Officer.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have endorsed initiatives only	<Not Applicable>	SDG

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

**Impacts on biodiversity**

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

**Dependencies on biodiversity**

**Indicate whether your organization undertakes this type of assessment**

No, but we plan to within the next two years

**Value chain stage(s) covered**

<Not Applicable>

**Portfolio activity**

<Not Applicable>

**Tools and methods to assess impacts and/or dependencies on biodiversity**

<Not Applicable>

**Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)**

<Not Applicable>

C15.4

**(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?**

Not assessed

**C15.5**

**(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?**

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Education & awareness

**C15.6**

**(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?**

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	Please select

**C15.7**

**(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Biodiversity strategy	Section on "Positive Impact on Natural Systems" pg 39 2022-ESG-Report.pdf

**C16. Signoff**

**C-FI**

**(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

Our responses to this questionnaire contain certain forward-looking statements, which are statements that are not historical facts, including statements regarding our sustainability commitments; our pathway to net-zero by 2050; our Gigaton Challenge; our 2030 Commitments; our other ESG targets, goals, commitments, and programs; and other business plans, projections, 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 “believe,” “project,” “expect,” “anticipate,” “assume,” “estimate,” “forecast,” “outlook,” “intend,” “strategy,” “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 because 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 questionnaire.

In some instances, our responses to this questionnaire may contain projections, estimates, forecasts, and similar forward-looking information based on scenarios or assumptions presented by the questionnaire or instructions provided in conjunction with the questionnaire. The anticipated results or outcomes provided in our response in this questionnaire are based solely on the assumptions that have been provided by the questionnaire, and actual results or outcomes could materially differ due to factors outside of the scope of these assumptions. This information should not be relied upon as a statement of, or revision to, any forward-looking guidance provided by the Company in conjunction with its SEC filings, and we disclaim any obligation to update any information provided in this questionnaire.

**C16.1**

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chair and CEO	Board chair

## SC. Supply chain module

### SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

N/A

### SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	15991700000

### SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

### SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

### SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track emissions to the customer level	no comment

### SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

### SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

Over 90% of our carbon impact is through the use of our products. The use of our products is our customers' scope 1 and 2 emissions. We strive to reduce this through management and innovation. Accurate tracking of emissions at the customer level would be cost prohibitive.

### SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

### SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No



SC4.1

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**(SC4.1) Are you providing product level data for your organization's goods or services?**

No, I am not providing data

Submit your response

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**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

**Please confirm below**

I have read and accept the applicable Terms