

## 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 plc is a \$14.136b global climate innovator. We bring efficient and sustainable climate solutions to buildings, homes and transportation driven by strategic brands Trane® and Thermo King® and an environmentally responsible portfolio of products and services. Prior to the separation of our Industrial segment on February 29, 2020, we announced a new organizational model and business segment structure designed to enhance our regional go-to-market capabilities, aligning the structure with our strategy and increased focus on climate innovation. Under the revised structure, we created three new regional operating segments from the former climate segment, which also serve as our reportable segments.

- Our Americas segment innovates for customers in the North America and Latin America regions. The Americas segment encompasses commercial heating and cooling systems, building controls, and energy services and solutions; residential heating and cooling; and transport refrigeration systems and solutions.
- Our EMEA segment innovates for customers in the Europe, Middle East and Africa region. The EMEA segment encompasses heating and cooling systems, services and solutions for commercial buildings, and transport refrigeration systems and solutions.
- Our Asia Pacific segment innovates for customers throughout the Asia Pacific region and India. The Asia Pacific segment encompasses heating and cooling systems, services and solutions for commercial buildings and transport refrigeration systems and solutions.

We generate revenue and cash primarily through the design, manufacture, sale and service of a diverse portfolio of market-leading brands, including Thermo King® and Trane®. We have approximately 36,000 employees and manufacturing and assembly operations in 34 plants globally: 23 plants in United States; 8 plants in Europe and the Middle East; 3 plants in Asia. Trane Technologies also maintains offices, warehouses and repair centers throughout the world. Trane Technologies plc is headquartered in Dublin, Ireland with executive offices in Davidson, North Carolina, USA.

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

Our Gigaton Challenge is aimed at reducing customer carbon emissions by one billion metric tons. This will require reducing emissions from products and services by 48% by 2030, which 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 Leading by Example commitment is our operational goals which include:

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

Our Opportunity for All is Trane Technologies' initiative to achieve workforce diversity reflective of its communities and create pathways to green and STEM 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

In 2021 we submitted net-zero targets to the Science Based Targets Initiative (SBTi) and in early 2022 we received approval for Scope 1, 2, and 3 net-zero targets by 2050

Each year since 2008 we (as Trane Inc.) have responded affirmatively to the Carbon Disclosure Project Investor Questionnaire. In 2020, we were honored to be recognized by a variety of highly esteemed organizations. Most notably: • Listed on the 2020 Dow Jones Sustainability World Index and North America Index • listed as a constituent of the FTSE4Good Index Series .

Note about the data in this response:

On February 29, 2020 (Distribution Date), we completed our Reverse Morris Trust transaction (the Transaction) with Gardner Denver Holdings, Inc. (Gardner Denver) whereby we separated our former Industrial segment (Ingersoll Rand Industrial) through a pro rata distribution to shareholders of record as of February 24, 2020

We define our organizational boundary using the financial control approach. In 2014 we completed a corporate-wide review of Scope 1 and 2 GHG emissions for all owned and leased assets using the Greenhouse Gas Protocol accounting standards. We feel this more accurately reflects the direct impact of our operational footprint.

## C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	No	<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(s)	Please explain
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 Sustainability and Technology Officer. The CSO 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 Office of the Chief Sustainability Officer and CTO. Example: In 2020, our Board voted to have all managers compensation tied to ESG, specifically to Scope 1 and 2 ghg reduction as well as Scope 3 product use ghg emission reduction.
Chief Executive Officer (CEO)	<ul style="list-style-type: none"> <li>- Our strategy for addressing climate-related risks is endorsed our Chair and CEO.</li> <li>- The CEO is Chair of the Board of Directors. The Board of Directors 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.</li> <li>- Greenhouse Gas reduction of our products is a CEO level performance metric, measured quarterly and annually and reviewed by the Compensation Committee annually.</li> </ul>

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	<ul style="list-style-type: none"> <li>Reviewing and guiding strategy</li> <li>Reviewing and guiding major plans of action</li> <li>Reviewing and guiding risk management policies</li> <li>Reviewing and guiding business plans</li> <li>Setting performance objectives</li> <li>Monitoring implementation and performance of objectives</li> <li>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</li> </ul>	<Not Applicable>	<ul style="list-style-type: none"> <li>- The Sustainability, Corporate Governance and Nominating Committee oversees risks associated with sustainability; Climate change is integrated into our enterprise risk management process</li> <li>- Performance against our 2030 Sustainability Commitments is reviewed at least quarterly at the board level as part of our strategy development and reporting of progress.</li> <li>- GHG reduction of our products is a CEO level performance metric, measured quarterly and annually.</li> </ul>

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 or our Board 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 Cohen, 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, has been on our board for a number of years and also leads our board committee on Technology & Innovation.	<Not Applicable>	<Not Applicable>

C1.2

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

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (Chief Technology and Sustainability Officer)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Quarterly

**C1.2a**

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).**

- (i) The EVP and Chief Sustainability and Technology Officer (CSO) reports to the Chair and CEO.
- (ii) The use of our products (HVAC and refrigerated transport) is our single largest source of greenhouse gas emissions, consequently our innovative solutions for buildings and transportation markets processes have the potential for greatest impact on climate change. Thus Trane Technologies' sustainability office reports directly to the CSO
- (iii) The Office of the CSO works with business leadership teams to accelerate sustainable innovation and technology-led growth strategies and promote an innovation-centric mindset for the organization. He 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 CSO leads Trane Technologies' enterprise sustainability work (the VP of Sustainability reports to the Office of the CSO) and serves on various boards and advisory councils: 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 CSO is the executive sponsor. The CSO also served on the board of The Alliance to Save Energy board; is a member of the US Department of Energy's National Renewable Energy Lab (NREL) Energy System Integration Technical Review Panel; Chair for the Board of Trustees for Discovery Place Science & Technology Center; member of the external advisory council for the P.C. Rossin College of Engineering and Applied Science at Lehigh University.
- (iv) Product GHG is a metric on the CSO's goals, monitored quarterly and annually. The External Sustainability Advisory Council (of which our CSO is a member) meets three times a year to review progress and advise on strategic direction. The Internal Sustainability Strategy Council (of which our CSO is the executive sponsor) meets quarterly to review progress against all sustainability targets, including greenhouse gas emissions of our operations and products, best practices. 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	

**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	Type of incentive	Activity incentivized	Comment
Chief Executive Officer (CEO)	Monetary reward	Emissions reduction target	Our management's Annual Incentive Matrix remuneration scheme 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
Management group	Monetary reward	Emissions reduction target	Our management's Annual Incentive Matrix remuneration scheme 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
All employees	Monetary reward	Emissions reduction project Energy reduction project Efficiency project Supply chain engagement	All employees are required to have a sustainability object as a part of their performance management plan. Objective tracking and achievement is needed in order to evaluate performance and is used for merit increases and promotions.

**C2. Risks and opportunities**

**C2.1**

**(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	0	1	
Medium-term	1	5	
Long-term	5	10	The range here is really intended to be 5 to 10 years plus.

## C2.1b

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

"Substantive impact" to our business may vary depending upon the circumstances. There is no single threshold that would appropriately measure impact in all cases. We align the goals for our company to strategic targets taking into account the Company's shareholders, other stakeholders, our business operations and strengths and our values.

## 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 Management Committee (ERM) integrates climate related risk into its risk management process and is a key part of our ESG oversight and management. Our ERM team works closely with our enterprise leadership team throughout the year to evaluate, manage, and plan climate 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 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:** Our ERM team and Center for Energy Efficiency and Sustainability (CEES) keeps a pulse and evaluates emerging regulations that support identification of risks from use of our products. In addition to identifying any transition or physical climate risks for our upstream, downstream, and direct operations. ERM 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's 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.

**ASSESS:** We assess climate change risks through support of climate, refrigerant and industry experts such as The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the Intergovernmental Panel on Climate Change (IPCC). To identify and manage climate risks we utilize multiple tools across the enterprise. For example, we perform a Materiality Assessment, including climate-related issues within a medium-term (1-5 year) time frame. Our most recent Materiality Assessment was performed in 2018 and is being updated 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 and thus are brought to our ERM teams' attention. Sustainability topics are ranked and evaluated in the long-term which is defined as a 10-year timeframe.

We also utilize the World Resource Institute (WRI) Aqueduct (TM) 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 ESG/Gensuite EHS 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.

We perform climate related scenario assessments, specifically for refrigerant transition, and the time horizon for consideration of such transition risks is 2029 or 10 years. We monitor climate-related risks quarterly by reporting progress and updates during Enterprise Risk Management committee meetings. For example, the use of our products is our single largest source of greenhouse gas emissions, consequently our innovative solutions for buildings, transportation markets and industrial processes have the potential for greatest impact on climate change, in order to assess risk we conduct a transition risk case study. In this study, we aim to act as a catalyst to address greenhouse gas emissions industry-wide. To do this, we are addressing our own operations but, more significantly, our products. Many of our products use refrigerants, a significant source of greenhouse gas emissions. We are leading the industry by committing to reduce the greenhouse gas refrigerant footprint of our products and incorporate lower GWP alternatives across our portfolio by 2030. The majority of the carbon footprint of our products is from the use of electricity. Emissions from refrigerants are approximately 10% of the total carbon footprint.

**MANAGE:** To manage our transition risk we are addressing efficiency and carbon reductions with a target of reducing our customers' emissions by 1 billion metric tons CO<sub>2</sub>e from business as usual by 2030. Another example: in 2015 we launched the EcoWise portfolio of products; an endorsement given to products with next-generation, low global warming potential refrigerants and high efficiency operation. In 2021 we increased the EcoWise portfolio and since 2013 have avoided approximately 21 million metric tons of CO<sub>2</sub>e globally.

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 2,300 leaders across the company includes ESG goals. These goals include specific annual targets on our path to meeting our ambitious 2030 commitments on emissions reduction, net positive water, zero waste to landfill and design for circularity. By linking pay with our climate related goals, we further incentives and ensure strategy management and climate risk/opportunity consideration throughout the organization. Our BoD reviews the enterprise leadership team's performance against their ESG goals and reviews their sustainability strategies, among other performance factors. We utilize an internal carbon pricing strategy which we expect to help lead our climate risk investment analysis related to energy efficiency and decarbonization. We also leverage the Gigaton Calculator for R&D of new products and innovation which are guided by two market needs, combating climate change and supporting communities to adapt to climate change. By meeting these two markets needs we not only help manage our own businesses climate risks but also our customers climate risks. We use a system-level approach combined with the UN SDGs to guide our research. Our technology and innovation expenditure are guided by 5 areas: transforming our core business, smart/sustainable cities, sustainable food systems, sustainable health networks and access for all.

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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: Regulatory Compliance. 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 is severely lacking.
Emerging regulation	Relevant, always included	Integrated into enterprise risk management 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 passed 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 HFCs based on CO2eq, but some jurisdictions are regulating phase out dates of particular equipment and setting GWP limits like California, which is proposing a regulation that will no longer allow R410A in the majority of HVAC equipment around the world.
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. We cannot provide any assurance that any new product or service will be successfully commercialized in a timely manner, if ever, or, if commercialized, will result in returns greater than our investment. Investment in a product or service could divert our attention and resources from other projects that become more commercially viable in the market. We also cannot provide any assurance that any new product or service will be accepted by our current and future markets. 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, 90% of our portfolio addresses greater need for energy efficiency (Trane air conditioning, Thermo King APUs), a risk could be failure to develop new products that are accepted in markets demanding more energy efficient 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 Management 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 is severely lacking.
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: Natural disasters or other unexpected events may disrupt our operations, adversely affect our results of operations and financial condition, and may not be covered by insurance. The occurrence of one or more unexpected events including hurricanes, fires, earthquakes, floods and other forms of severe weather, health epidemics or pandemics or other contagious outbreaks or other unexpected events in the U.S. or in other countries in which we operate (for example our manufacturing plants in Arecibo PR and Lynn Haven FL) 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 or by impacting the availability and cost of materials needed for manufacturing. 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: 13 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, 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?**

Downstream

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

Emerging regulation	Mandates on and regulation of existing products and services
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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**

Global climate change and related regulations could negatively affect our business.

Refrigerants are essential to many of our products and there is concern regarding the global warming potential of such materials. As such, national, regional and international regulations and policies are being implemented to curtail their use. As regulations reduce the use of the current class of widely used refrigerants, our next generation solutions (EcoWise portfolio) are already being adopted globally, with sales in more than 30 countries to date. Our 2030 sustainability targets encourage our

product teams to offer a full line of next generation, lower global warming potential products by 2030 without compromising safety or energy efficiency. Currently we call this our EcoWise portfolio. Additionally, we are committed to increase energy efficiency and reduce the greenhouse gas footprint of our operations by 50 percent by 2030. While we are committed to pursuing these sustainable solutions, there can be no assurance that our commitments will be successful, that our products will be accepted by the market, that proposed regulation or deregulation will not have a negative competitive impact or that economic returns will match the investment that we are making in new product development.

Concerns regarding global climate change have resulted in the Kigali amendment to the Montreal Protocol, pursuant to which countries have agreed to a scheduled phase down of certain high global warming potential refrigerants. Countries may pass regulations that are even more restrictive than this international accord. Some countries, including the U.S., have not yet ratified the amendment and there could be lower customer demand for next generation products in these countries. The U.S. region accounts for 78% of our revenue and therefore could have significant impact on product demand on next generation products. 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.

**Time horizon**

Medium-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)**

5654400000

**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: Approximately 40% of our portfolio revenue relies on the use of refrigerants. Our total revenue was \$14.136B in 2021. .4 x 14.136B = 5.6544B

**Cost of response to risk**

193000000

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

To mitigate risks associated with decreased demand of our products, we invest in our R&D technologies for new and lower-emission products. In 2021, we spent \$193M on R&D with a focus on Product and system-level improvements such as increasing energy efficiency, Developing and implementing lower-GWP refrigerants, Reducing material content in products, Designing products for circularity.

We have increased this investment over time, aligned to our business growth. By leveraging our enterprise innovation, advanced technology, and engineering technology center teams, this investment has generated revenue from new products at the world-class rate of 20.5% of our overall revenue – ensuring that we are balancing our portfolio between new and mature product lines.

Many of our products use refrigerants. We have committed to reduce the greenhouse gas refrigerant footprint of our products by 55% per cooling ton by 2030 and incorporate lower GWP alternatives across our portfolio by 2030. In 2015 we launched the EcoWise portfolio of products - next-generation, low global warming potential refrigerants and high efficiency operation. In 2019 we expanded the EcoWise portfolio with new high-efficiency chillers, and since 2013 have avoided approximately 35 million metric tons of CO2e globally. We want our customers to have choices and guidance about how and when to transition to low GWP refrigerant alternatives. We continue to introduce and evaluate next-generation refrigerants for global markets to ensure we have the best balance of performance, safety, reliability and availability as well as a strong service organization and supply chain in place to support the transition. Our next-generation chillers are being sold in more than 30 countries, most of which do not have regulations in place.

Many countries and U.S. states are acknowledging the benefits of these products on emissions and are introducing regulations that require them. We continue working with suppliers through our 2030 Sustainability Commitments to identify and develop a viable, safe, long-term, low GWP alternative to R-410A, which is the most prevalent hydrofluorocarbon (HFC) used in heating, ventilation and air conditioning (HVAC) today. This alternative is crucial to the success of the Kigali Agreement to the Montreal Protocol, which seeks to phase down HFCs globally by approximately 85% by 2046.

**Comment**

**Identifier**

Risk 2

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

Direct operations

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

Acute physical	Cyclone, hurricane, typhoon
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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**

The occurrence of one or more unexpected events including hurricanes, fires, earthquakes, floods and other forms of severe weather, health epidemics or pandemics or other contagious outbreaks or other unexpected events in the U.S. or in other countries in which we operate (we have specifically identified our Commercial HVAC plant in Lynn Haven FL and our Thermo King plant in Arecibo PR ) 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 or by impacting the availability and cost of materials needed for manufacturing. 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.

**Time horizon**

Short-term

**Likelihood**

Very likely

**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)**

4448000000

**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: Currently 28% of our production plants (including the plants mentioned above in Lynn Haven FL and Aricebo PR) represent approximately 46% of Cost of Goods Sold are located in locations at risk from typhoons and cyclones. 46% of our 2021 COGS ( \$9.67 B )= 4.448B As water quality and availability are the greatest risks to production, we anticipate that this represents the majority of our risks associated with physical climate parameters.

**Cost of response to risk**

0

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

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 2021 13 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.

Planning for an extreme weather event, and other crisis, is managed as a risk in our Enterprise Risk Management 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

**Comment**

---

**Identifier**

Risk 3

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

Direct operations

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

Emerging regulation	Other, please specify (Impact due to changed in climate-related regulations or initiatives)
---------------------	---------------------------------------------------------------------------------------------

**Primary potential financial impact**

Increased indirect (operating) costs

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

<Not Applicable>

**Company-specific description**

Higher energy and materials prices could adversely affect our financial results. We are exposed to large fluctuations in the price of petroleum-based fuel due to the instability of current market prices as well as fluctuations in raw materials and component pricing. Higher energy and materials costs increase our operating costs and the cost of shipping our products, and supplying services, to customers around the world. Also, 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 which could impact the pricing of refrigerants. Trane Technologies is a diversified, global company. We generate revenue and cash primarily through the design, manufacture, sale and service of a portfolio of commercial products.

**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)**

2901000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact figure**

Although energy costs are only ~5% of COGS, materials and supplies that also are highly energy intensive make up about ~25% of our COGS.  $9.67B \times 30\%$  (energy + energy intensive materials/components) = 2.901B

**Cost of response to risk**

0

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

We have this risk built into enterprise risk management 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. We have a commitment to reduce absolute energy consumption by 10% by 2030 as well as a commitment to be 100% renewable energy powered by 2040.

**Comment**

## 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

## 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**

Energy Efficiency: 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.

**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)**

2898000000

**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 \$14.136B in 2021. We expect demand for our energy-efficient products and services will increase with effective product efficiency regulation. In 2021 we launched 62 new products and services, spanning nearly every business and region, and our innovation revenue in 2021 was 20.5 percent. We estimate that 20.5 percent of our 2021 revenue is the gross potential financial impact.  $.205 \times 14.136B = 2.898B$

**Cost to realize opportunity**

193000000

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

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. Costs associated

with development of energy efficient technologies and management of policy advocacy are primarily in R&D. Our R&D spend in 2021 was 193m USD. 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, a school district based in Illinois was awarded building renovation grant funding requiring a school built in 1965 to achieve net-zero status. Trane, a strategic business unit of Trane Technologies, conducted an energy audit to identify the need for new roofing, windows, insulation, and weatherized doors to further improve the energy efficiency of the building and reduce the heating and cooling load demand. To ensure net-zero standards, Trane supported the installation of a 206 kW on-site solar array. To compliment this system Trane installed an electric variable refrigerant flow (VRF) dedicated outdoor air HVAC system (DOAS) with heat recovery technology which captures and repurposes heat, providing both heating and cooling capabilities without direct fossil fuel use. To further improve the energy efficiency of the system Trane's building automation system (BAS) and Tracer® controls were installed. These systems optimize the HVAC of a building in a way that reduces degradation in performance over time.

Trane equipment and services helped the school achieve net-zero standing in 2021 and save more than \$32,000 per year in electricity costs. Examples like this demonstrate how Trane Technologies provides solutions which not only help combat but also adapt to climate change.

## 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)

4950000000

### 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 through Trane Building Advantage and Nexia; and Thermo King transport temperature control solutions) were \$14.136b USD in 2021. We have calculated our Clean Revenue based on the Corporate Knights definition and methodology to be 35% of our total revenue. 35% of 14.136B is 4.95B

### Cost to realize opportunity

193000000

### 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 and management of policy advocacy are primarily in R&D. Our R&D spend in 2021 was 193M 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; Thermo King 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)**

2260000000

**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. Overall, emerging market revenues made up 16% of the company's revenue for 2021. We reported net revenues of \$14.136B in 2021.  $.16 \times 14.136B = 2.26B$

**Cost to realize opportunity**

193000000

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

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 approximately 3,400 technologists at 14 engineering and technology centers globally, including facilities in Prague, Czech Republic and Shanghai, China. Our innovation effort have been particularly successful in China which makes up approximately 75% of our 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. Costs associated with development of energy efficient technologies and management of policy advocacy are primarily in R&D. Our R&D spend in 2021 was 193M USD.

**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 transition plan that aligns with a 1.5°C world?**

Row 1

**Transition plan**

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

**Publicly available transition plan**

Yes

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

We do not have a feedback mechanism in place, but we plan to introduce one within the next two years

**Description of feedback mechanism**

<Not Applicable>

**Frequency of feedback collection**

<Not Applicable>

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

**Explain why your organization does not have a 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

**(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

**(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 NZE 2050	Company-wide	<Not Applicable>	Trane Technologies has committed to and been approved a short-term 1.5 degree aligned near-term target and for a net-zero target by 2050 so this choice was made in alignment with our public commitments.
Physical climate scenarios RCP 4.5	Company-wide	<Not Applicable>	Trane Technologies has committed to and been approved a short-term 1.5 degree aligned near-term target and for a net-zero target by 2050 so this choice was made in alignment with our public commitments.

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**

Are we properly assessing business risks and opportunities from climate change relative to different scenarios and time horizons in order to meet expectations from internal and external stakeholders, and are we disclosing the results effectively.

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

We believe we are managing climate risks properly by including them within our Enterprise Risk Management Process and through our climate scenario analysis. We believe we can improve on our reporting of our process as well as outcomes in our next reporting cycle for 2022.

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 plan to introduce 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 are also have strategies in place to transition from high GWP refrigerants before regulations. Also, there continues to be a lack of consistent climate legislation, which creates economic and regulatory uncertainty. In addition, the U.S. withdrawal from the Paris Accord could affect our competitiveness in certain markets. 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 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, global pandemics, and other 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 commitment 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 worlds emissons (~25% 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 to achieve carbon neutral operations, net positive water position 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 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, Trane's Columbia, SC, facility innovates, produces and tests Trane heating, cooling and ventilation products, including HVAC components and units for the company's Commercial HVAC business. Trane applies expertise in environmental technology and energy conservation to reduce energy use, greenhouse gas emissions and waste-to-landfill. Trane Installed a 1,342 kW GE Solar PV power system, which reduces more than 74,000 metric tons of greenhouse gas emissions over the 25 year lifespan of the system, and puts power directly back onto the grid. The energy produced over the lifetime of the solar power system is equivalent to 4,006,810 passenger car miles driven; 1,220,258 gallons of water used by a coal fired power plant; energy consumed by 153 houses each year; or planting 43,150 trees

**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 SBU level targets for revenue and performance related to emissions reductions from our products and solutions. Each SBU develops a plan for meeting the tar 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 favourably 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 etc. Our plans extend such prioritization beyond internal organic growth initiatives to include customer choices that favour 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. Using the Corporate Knights methodology for Clean Revenue we have calculated that 35% of our revenue in 2021 is considered clean revenue which is 14.136B x .35= \$4.95B

**C3.5**

**(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?**

No, but we plan to in the next two years

**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**

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

**Target reference number**

Abs 1

**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)**

<Not Applicable>

**Base year**

2019

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

304585

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

141753

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

<Not Applicable>

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

446338

**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 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]**

223169

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

257632

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

61086

**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)**

318718

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

57.1853617661951

**Target status in reporting year**

Underway

**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

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

We have committed 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

**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 (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 (in all Scope 3 categories) covered by this 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 (metric tons CO2e per unit of activity)**

354000000

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

354000000

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

5.47945205479452

**Target status in reporting year**

Underway

**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



**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>

C4.2

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

Net-zero target(s)

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)**

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	6	
To be implemented*	34	53371
Implementation commenced*	14	50683
Implemented*	10	53651
Not to be implemented	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	Building Energy Management Systems (BEMS)
--------------------------------	-------------------------------------------

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

2365.52

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

Scope 1  
Scope 2 (market-based)

**Voluntary/Mandatory**

Voluntary

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

57000

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

25000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Intelligent meters for HVAC & lighting optimization

**Initiative category & Initiative type**

Energy efficiency in buildings	Heating, Ventilation and Air Conditioning (HVAC)
--------------------------------	--------------------------------------------------

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

13.45

**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)**

54750

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

2550000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Upgrade to high efficiency HVAC equipment

**Initiative category & Initiative type**

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

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

4.48

**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)**

18250

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

850000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Extensive lighting & controls upgrades

**Initiative category & Initiative type**

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

17.79

**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)**

5000

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

10000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

11-15 years

**Comment**

Enhanced insulation for process oven/curing system

**Initiative category & Initiative type**

Fugitive emissions reductions

Refrigerant leakage reduction

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

50

**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)**

7000

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

10000

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

Enhanced refrigerant dispensing and equipment charging control system

**Initiative category & Initiative type**

Low-carbon energy consumption

Low-carbon electricity mix

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

1200

**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)**

0

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

7238

**Payback period**

1-3 years

**Estimated lifetime of the initiative**

3-5 years

**Comment**

Acquisition of renewable generated electricity

**Initiative category & Initiative type**

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

50000

**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)**

14000

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

350000

**Payback period**

16-20 years

**Estimated lifetime of the initiative**

Ongoing

**Comment**

Material substitution for equipment testing (discontinued use of a refrigerant leak testing gas).

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 (EHS) management systems requirements apply to all majority-owned operations worldwide. In 2014, Trane Technologies completed a major revision and update to our internal EMS which is now 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 now derived from our existing corporate operational excellence program and applies the same principles to EHS by incorporating tools that have already proven successful. As a result of the company's push for an EHS strategy and EMS that is oriented toward operational excellence, EHS is now viewed as an embedded component of the jobs themselves and thus exposed to the value stream. Additionally, we have updated our Environment, Health and Safety policy, originally published in 2015. The policy has been signed by Michael Lamach, Executive Chairman.
Internal incentives/recognition programs	President's Awards recognize achievements in areas that support Trane Technologies' goals including energy efficiency and greenhouse gas emission reductions.
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

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

Yes

C4.5a

**(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)**

EcoWise™ is a portfolio of products designed to lower environmental impact with next generation, low global warming potential refrigerants and high efficiency operation. 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)**

Yes

**Methodology used to calculate avoided emissions**

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

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

Use stage

**Functional unit used**

mt co2e

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

2019

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

Use stage

**Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario**

50000000

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

We use GHG protocol Corporate Value Chain Accounting and Reporting Standard to guide our calculations on avoided emissions from the use of our products.

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

35

**C5. Emissions methodology**

**C5.1**

**(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?**

No

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

<Not Applicable>

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

<Not Applicable>

**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>

**(C5.2) 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)**

314077

**Comment**

Trane Technologies updated the base year Scope 1 GHG to include small operations acquired during 2021 and to adjustments made to 2019 activity data.

**Scope 2 (location-based)****Base year start**

January 1 2019

**Base year end**

December 31 2019

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

154646

**Comment**

Trane Technologies made a minor adjustment to the 2019 location-based Scope 2 GHG to accommodate for two small sites acquired in 2021 and for minor 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)**

110683

**Comment**

No adjustments are required for the 2019 Scope 2 market-based baseline.

**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)**

78906

**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

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**(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)**

257632.25

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

Trane Technologies has provided the 2021 gross Scope 1 that includes the direct Scope 1 emissions associated with combustion of fossil fuels (aviation fuel, diesel fuel, gasoline, propane, and natural gas) as well as losses of refrigerants with global warming potentials, and VOC emissions of various process materials. Our Scope 1 GHG includes releases from manufacturing sites, warehouses, R&D centers, offices, and service vehicles operations.

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 the adjustments incorporate 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**

137264.2

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

61085.95

**Start date**

<Not Applicable>

**End date**

<Not Applicable>

**Comment**

The location-based Scope 2 GHG has trended lower for 2021 vs 2020 and 2019 due to energy efficiency improvement projects. The market-based Scope 2 GHG has also trended much lower for 2021 vs 2019 given our successes to acquire additional renewable energy credits and due to energy efficiency improvement projects.

**C6.4**

---

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

No

**C6.5**

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**(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**

Average product method

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

0

**Please explain**

This is our first year reporting this category.

**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 do not have emissions within this category.

**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**

This is our first year reporting this category.

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

24562

### 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 spend and downstream is about 75% of our spend. 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 2020)

## Waste generated in operations

### Evaluation status

Not relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

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.

## Business travel

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

1895

### Emissions calculation methodology

Supplier-specific 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 CO<sub>2</sub>e)

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.

## Upstream leased assets

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

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)

73684

### 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 spend and downstream is about 75% of our spend. 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 2020)

## 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

We do not have emissions within this category.

## Use of sold products

### Evaluation status

Relevant, calculated

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

366000000

### 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.

## 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

## 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 emissions within this category.

**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 emissions within this category.

**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 emissions within this category.

**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 upstream 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 downstream 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	Representative selection of products/services	Cradle-to-grave	ISO 14025	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. The specific branding for leading energy efficiency products will be created in the near future. 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 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. We anticipate establishing a new brand which signifies this world-class efficiency.

**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**

0.0000225

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

318718.2

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

14136400000

**Scope 2 figure used**

Market-based

**% change from previous year**

20.04

**Direction of change**

Decreased

**Reason for change**

Decrease in both Scope 1 and Scope 2 market-based GHG emissions as well as an increase in company revenue. The decrease in Scope 1 emissions primarily came from a project at one facility where we implemented a material substitution for equipment testing (discontinued use of a refrigerant leak testing gas). Scope 2 reduction projects included implementation of a BEMS as well as procurement of renewable energy.

**C7. Emissions breakdowns**

**C7.1**

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

Yes

**C7.1a**

**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	109878.66	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	147753.6	IPCC Fifth Assessment Report (AR5 – 100 year)

**C7.2**

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

Country/Region	Scope 1 emissions (metric tons CO2e)
North America	171120.2
Latin America (LATAM)	45796.24
Eastern Europe, Middle East, and Africa (EEMEA)	31005.08
Asia Pacific (or JAPA)	9710.73

**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)	131298.38
Trane HVAC (Residential)	66024.34
Thermo King (Transport)	58619.7
Enterprise (corporate, engineering centers)	1689.82

**C7.5**

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
North America	101406.41	27253.96
Latin America (LATAM)	13375.12	10092.64
Europe, Middle East and Africa (EMEA)	4233.11	638.36
Asia Pacific (or JAPA)	18249.56	23100.99

**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)	75016.24	43243.82
Trane HVAC (Residential)	34491.09	4150.69
Thermo King (Transport)	15200.45	1238.3
Enterprise (corporate, engineering centers)	12556.42	12453.14

**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	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	12786.61	Decreased	3.65	Trane Technologies reduced market-based Scope 2 GHG by 12,787 for 2021 vs 2020. The % change is calculated as ((2021 Scope 2 - 2020 Scope 2) / 2020 Scope 1 + 2020 Scope 2) X 100. For 2021, Trane Technologies increase utilization of zero carbon electricity and acquired and retired additional renewable energy credits compared to previous years.
Other emissions reduction activities	23635.85	Decreased	6.75	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 2021 Scope 1 refrigerant GHG - 2020 Scope 1 refrigerant GHG. The % change is this delta divided by the 2020 Scope 1 + 2 emissions, multiplied by 100.
Divestment		<Not Applicable >		
Acquisitions		<Not Applicable >		
Mergers		<Not Applicable >		
Change in output		<Not Applicable >		
Change in methodology		<Not Applicable >		
Change in boundary		<Not Applicable >		
Change in physical operating conditions		<Not Applicable >		
Unidentified		<Not Applicable >		
Other		<Not Applicable >		

**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**

First year of reporting this category

**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**

<Not Applicable>



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

**Direction of change**

First year of reporting this category

**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**

<Not Applicable>

**Upstream transportation and distribution**

**Direction of change**

Decreased

**Primary reason for change**

Change in physical operating conditions

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

9547

**% change in emissions in this category**

28

**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 spend and downstream is about 75% of our spend. 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 2020)

**Waste generated in operations**

**Direction of change**

Increased

**Primary reason for change**

Change in output

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

4661

**% change in emissions in this category**

4.8

**Please explain**

Increase in total waste generated from 2020 to 2021.

**Business travel**

**Direction of change**

Decreased

**Primary reason for change**

Change in physical operating conditions

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

1893

**% change in emissions in this category**

50

**Please explain**

Decreased air travel

**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**

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

#### Upstream leased assets

##### Direction of change

Decreased

##### Primary reason for change

Unidentified

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

2472

##### % change in emissions in this category

3.7

##### Please explain

We do not quantify a 3.7% change to be material for this category.

#### Downstream transportation and distribution

##### Direction of change

Decreased

##### Primary reason for change

Unidentified

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

28642

##### % change in emissions in this category

28

##### 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 spend and downstream is about 75% of our spend. 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 2020)

#### Use of sold products

##### Direction of change

Increased

##### Primary reason for change

Change in output

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

35000000

##### % change in emissions in this category

10.6

##### Please explain

We sold more equipment in 2021 vs, 2020, our product use emissions reduction target is measured an intensity metric (emissions per cooling ton) which we reduced y-o-y.

#### End-of-life treatment of sold products

##### Direction of change

First year of reporting this category

##### 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

<Not Applicable>

## C8. Energy

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### C8.1

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#### (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)	0	499123.29	499123.29
Consumption of purchased or acquired electricity	<Not Applicable>	155930.17	153836.76	309766.93
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>	4616.21	<Not Applicable>	4616.21
Total energy consumption	<Not Applicable>	160546.38	65295998	813506.43

**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**

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 biofuels in 2021.

**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 2021.

**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 2021.

**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 2021.

## Oil

### Heating value

HHV

### Total fuel MWh consumed by the organization

266226.7

### 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

232896.59

### 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 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

<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 usage of non-renewable hydrogen.

**Total fuel**

**Heating value**

HHV

**Total fuel MWh consumed by the organization**

499123.29

**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**

Total consumption of liquid and gaseous fuels.

**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	6437.42	4574.9	6437.42	4574.9
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

**C8.2g**

**(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.**

**Country/area**

Brazil

**Consumption of electricity (MWh)**

1682.43

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

0

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

1682.43

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

No

**Country/area**

Canada

**Consumption of electricity (MWh)**

715.04

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

0

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

715.04

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

No

**Country/area**

China

**Consumption of electricity (MWh)**

30446.32

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

0

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

30446.32

Is this consumption excluded from your RE100 commitment?

No

---

Country/area

Czechia

Consumption of electricity (MWh)

4100.08

Consumption of heat, steam, and cooling (MWh)

0

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

4100.08

Is this consumption excluded from your RE100 commitment?

No

---

Country/area

France

Consumption of electricity (MWh)

8794.31

Consumption of heat, steam, and cooling (MWh)

0

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

8794.31

Is this consumption excluded from your RE100 commitment?

No

---

Country/area

Germany

Consumption of electricity (MWh)

871.04

Consumption of heat, steam, and cooling (MWh)

0

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

871.04

Is this consumption excluded from your RE100 commitment?

No

---

Country/area

India

Consumption of electricity (MWh)

550.51

Consumption of heat, steam, and cooling (MWh)

0

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

550.51

Is this consumption excluded from your RE100 commitment?

No

---

Country/area

Ireland

Consumption of electricity (MWh)

4201.63

Consumption of heat, steam, and cooling (MWh)

0

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

4201.63

Is this consumption excluded from your RE100 commitment?

No

---

Country/area

Italy

Consumption of electricity (MWh)

535.45

Consumption of heat, steam, and cooling (MWh)

0

---

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

535.45

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

No

---

**Country/area**

Mexico

**Consumption of electricity (MWh)**

18259.35

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

0

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

18259.35

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

No

---

**Country/area**

Netherlands

**Consumption of electricity (MWh)**

78.65

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

0

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

78.65

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

No

---

**Country/area**

Puerto Rico

**Consumption of electricity (MWh)**

8464.22

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

0

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

8464.22

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

No

---

**Country/area**

Spain

**Consumption of electricity (MWh)**

681.93

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

0

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

681.93

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

No

---

**Country/area**

Sweden

**Consumption of electricity (MWh)**

768.2

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

0

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

768.2

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

No

---

**Country/area**

Thailand

**Consumption of electricity (MWh)**

891.75



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

0

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

891.75

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

No

---

**Country/area**

United States of America

**Consumption of electricity (MWh)**

237.56

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

0

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

237.56

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

No

---

**Country/area**

United Kingdom of Great Britain and Northern Ireland

**Consumption of electricity (MWh)**

352.44

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

0

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

352.44

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

No

---

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

United States of America

**Sourcing method**

Direct procurement from an offsite grid-connected generator e.g. Power Purchase Agreement (PPA)

**Renewable electricity technology type**

Wind

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

105892.23

**Tracking instrument used**

Other, please specify (Company owned and retired RECs through ERCOT system)

**Total attribute instruments retained for consumption by your organization (MWh)**

105892.23

**Country/area of origin (generation) of the renewable electricity/attribute consumed**

United States of America

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

2021

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

2021

**Brand, label, or certification of the renewable electricity purchase**

Green-e

**Comment**

Company investment in the Engie wind farm project (Seymour Hills) in NW Texas

---

**Country/area of renewable electricity consumption**

Ireland

**Sourcing method**

Green electricity products from an energy supplier (e.g. Green Tariffs)

**Renewable electricity technology type**

Renewable electricity mix, please specify (Mix of wind, solar, hydro, and bio fuels. )

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

4201.63

**Tracking instrument used**

Contract

**Total attribute instruments retained for consumption by your organization (MWh)**

4201.63

**Country/area of origin (generation) of the renewable electricity/attribute consumed**

Ireland

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

2021

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

2021

**Brand, label, or certification of the renewable electricity purchase**

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

**Comment**

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

---

**Country/area of renewable electricity consumption**

Italy

**Sourcing method**

Green electricity products from an energy supplier (e.g. Green Tariffs)

**Renewable electricity technology type**

Wind

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

372.87

**Tracking instrument used**

Contract

**Total attribute instruments retained for consumption by your organization (MWh)**

372.87

**Country/area of origin (generation) of the renewable electricity/attribute consumed**

Italy

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

2021

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

2021

**Brand, label, or certification of the renewable electricity purchase**

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

**Comment**

The power generation/supplier directly provides electricity generated from 100% renewable sources. Estimated commissioning year.

---

**Country/area of renewable electricity consumption**

Spain

**Sourcing method**

Unbundled Energy Attribute Certificate (EAC) purchase

**Renewable electricity technology type**

Renewable electricity mix, please specify (Mix of wind, solar, hydro, and bio fuels. )

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

681.93

**Tracking instrument used**

Contract

**Total attribute instruments retained for consumption by your organization (MWh)**

681.93

**Country/area of origin (generation) of the renewable electricity/attribute consumed**

Spain

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

2020

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

2021

**Brand, label, or certification of the renewable electricity purchase**

Other, please specify (Guarantees of Origin provided by the power company.)

**Comment**

Guarantees of Origin provided by the power company. Estimated commissioning year.

---

**Country/area of renewable electricity consumption**

Czechia

**Sourcing method**

Unbundled Energy Attribute Certificate (EAC) purchase

**Renewable electricity technology type**

Wind

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

372.87

**Tracking instrument used**

Contract

**Total attribute instruments retained for consumption by your organization (MWh)**

372.87

**Country/area of origin (generation) of the renewable electricity/attribute consumed**

France

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

2021

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

2021

**Brand, label, or certification of the renewable electricity purchase**

Other, please specify (Guarantees of Origin associated with wind related renewable energy located in France )

**Comment**

Guarantees of Origin associated with wind related renewable energy located in France. Estimated commissioning year,

---

**Country/area of renewable electricity consumption**

United States of America

**Sourcing method**

Unbundled Energy Attribute Certificate (EAC) purchase

**Renewable electricity technology type**

Solar

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

3569.22

**Tracking instrument used**

US-REC

**Total attribute instruments retained for consumption by your organization (MWh)**

3569.22

**Country/area of origin (generation) of the renewable electricity/attribute consumed**

United States of America

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

2020

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

2021

**Brand, label, or certification of the renewable electricity purchase**

Green-e

**Comment**

Company purchase of Green-e RECs. Estimated date for the commissioning year.

---

**Country/area of renewable electricity consumption**

United States of America

**Sourcing method**

Unbundled Energy Attribute Certificate (EAC) purchase

**Renewable electricity technology type**

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

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

39784.57

**Tracking instrument used**

Contract

**Total attribute instruments retained for consumption by your organization (MWh)**

39784.57

**Country/area of origin (generation) of the renewable electricity/attribute consumed**

United States of America

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

2020

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

2021

**Brand, label, or certification of the renewable electricity purchase**

Green-e

**Comment**

Renewable energy RECs provided by the power supplier. Commissioning year is estimated.

## C8.2j

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

China

**Renewable electricity technology type**

Solar

**Facility capacity (MW)**

2.8

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

2868.2

**Renewable electricity directly consumed by your organization from this facility in the reporting year for which certificates were not issued (MWh)**

2621.99

**Renewable electricity directly consumed by your organization from this facility in the reporting year for which certificates were issued and retired (MWh)**

0

**Renewable electricity sold to the grid in the reporting year (MWh)**

246.21

**Certificates issued for the renewable electricity that was sold to the grid (MWh)**

0

**Certificates issued and retired for self-consumption for the renewable electricity that was sold to the grid (MWh)**

0

**Type of energy attribute certificate**

&lt;Not Applicable&gt;

**Total self-generation counted towards RE100 target (MWh) [Auto-calculated]**

2621.99

**Comment**

Onsite photovoltaic system. The bulk of the generated electricity is used onsite with a small portion sold to the grid.

**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 directly consumed by your organization from this facility in the reporting year for which certificates were not issued (MWh)**

1952.91

**Renewable electricity directly consumed by your organization from this facility in the reporting year for which certificates were issued and retired (MWh)**

0

**Renewable electricity sold to the grid in the reporting year (MWh)**

1616.32

**Certificates issued for the renewable electricity that was sold to the grid (MWh)**

0

**Certificates issued and retired for self-consumption for the renewable electricity that was sold to the grid (MWh)**

0

**Type of energy attribute certificate**

&lt;Not Applicable&gt;

**Total self-generation counted towards RE100 target (MWh) [Auto-calculated]**

1952.91

**Comment**

Two onsite photovoltaic systems. One unit directs all generated electricity to the grid. The second unit consumes most of the generated electricity with a small portion sold to the grid.

## C8.2k

**(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. 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. 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**

**(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-specific
Row 1	Yes, in specific countries/areas in which we operate	<Not Applicable>

**C8.2m**

**(C8.2m) Provide details of the country-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 Other, please specify (Due to supply and demand challenges, the renewables developers are focused on companies who require a large number of RECs)	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 from business as usual by 2030. The specific branding for leading energy efficiency products will be created in the near future. 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 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. We anticipate establishing a new brand which signifies this world-class efficiency.

**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: Res a/c 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**

35

**Efficiency figure in the reporting year**

50

**Metric numerator**

Btu

**Metric denominator**

watt-hour

**Comment**

50M refers to the product emissions savings for 2021

**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	

**C-CG9.6a**

**(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)

**Stage of development in the reporting year**

Large scale commercial deployment

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

41 - 60%

**R&D investment figure in the reporting year (optional)**

193000000

**Comment**

**Technology area**

Smart systems

**Stage of development in the reporting year**

Large scale commercial deployment

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

21 - 40%

**R&D investment figure in the reporting year (optional)**

193000000

**Comment**

Total company R&D spend (\$193,000,000) split between low GWP refrigerant options and building automation technology services

## C10. Verification

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### C10.1

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**(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

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**(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**

Moderate assurance

**Attach the statement**

2021 Trane Technologies - EHS Carbon Data Assurance Statement-03292022.pdf

**Page/ section reference**

Pages 1 through 3 provide the limited assurance statement for the 2021 performance year completed by LRQA. The verification included Scope 1, 2, and 3 along with other EHS parameters. There are no material findings with the 2021 data assurance review.

**Relevant standard**

ISO14064-3

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

100

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### C10.1b

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**(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 location-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**

2021 Trane Technologies - EHS Carbon Data Assurance Statement-03292022.pdf

**Page/ section reference**

Pages 1 through 3 provide the limited assurance statement for the 2021 performance year completed by LRQA. The verification included Scope 1, 2, and 3 along with other EHS parameters. There are no material findings with the 2021 data assurance review.

**Relevant standard**

ISO14064-3

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

100

---

**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**

2021 Trane Technologies - EHS Carbon Data Assurance Statement-03292022.pdf

**Page/ section reference**

Pages 1 through 3 provide the limited assurance statement for the 2021 performance year completed by LRQA. The verification included Scope 1, 2, and 3 along with other EHS parameters. There are no material findings with the 2021 data assurance review.

**Relevant standard**

ISO14064-3

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

100

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**C10.1c**

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**(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**

2021 Trane Technologies - EHS Carbon Data Assurance Statement-03292022.pdf

**Page/section reference**

1

**Relevant standard**

ISO14064-3

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

100

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**C10.2**

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**(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 completed 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 Reported 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 2021.
C6. Emissions data	Other, please specify (GHG emissions factors and materials physical properties)	ISO 14064	As part of the 2021 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.

**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 originated or purchased any project-based carbon credits within the reporting period?**

No

**C11.3**

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

Yes

**C11.3a**

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

**Objective for implementing an internal carbon price**

Drive energy efficiency  
Drive low-carbon investment

**GHG Scope**

Scope 1  
Scope 2

**Application**

Ad-hoc

**Actual price(s) used (Currency /metric ton)**

16

**Variance of price(s) used**

No variance, price is set.

**Type of internal carbon price**

Shadow price

**Impact & implication**

We have used a shadow price on carbon to inform our investment in renewable energy opportunities. We have committed to RE100 by 2040 but prioritize our investment and transition based on, our carbon analysis, specifically our choices to pursue virtual power purchase agreements in the U.S., and onsite solar system in Taicang, China, and the choice to purchase direct supply for our site in Galway.

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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**

Information collection (understanding supplier behavior)

**Details of engagement**

Collect climate change and carbon information at least annually from suppliers

**% of suppliers by number**

1.5

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

52

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

52

**Rationale for the coverage of your engagement**

For 2021, 100% of our Preferred Supplier Base was in-scope for this request, 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. The survey recipients represented over 50% of our total global spend and spanned 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 receive have more opportunity to grow their business with Trane 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 achieved a 1.5% increase in the % of spend in 2021 so we consider this a success.

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**

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## C12.1b

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

#### Type of engagement & Details of engagement

Collaboration & innovation	Run a campaign to encourage innovation to reduce climate change impacts
----------------------------	-------------------------------------------------------------------------

#### % of customers by number

15

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

15

#### Please explain the rationale for selecting this group of customers and scope of engagement

Trane CHVAC developed a Key Account Decarbonization Program to provide advisory insights to large, corporate customers to support their decarbonization journey. The program was designed to provide insights around four key decarbonization levers: Energy Efficiency, Electrification, Refrigerant Management and Renewable Energy. Customers were given access to subject matter experts and proprietary tools to inform goal setting, roadmap development and engineering of these solutions. Our large corporate customers were coming to Trane Technologies seeking peer guidance on facilitating a successful decarbonization program. Our commercial HVAC team hosts and can effectively deliver the insights to corporate customers to enhance the outcomes on their decarbonization journey. The rationale for engaging with this group of customers is because our large corporate customers that are part of this program have significant market pull, and our large C&I customers are further ahead in their journeys and are therefore seeking scale in their decarbonization solutions. As a result, by focusing our customer engagement initiatives on this group, we are able to increase the impact of the program and explore collaboration with customers that are demonstrating maturity in their climate-related practices.

#### Impact of engagement, including measures of success

Trane considers the number of customer education sessions as a key metric of success for this customer engagement initiative. Specifically, having 40 sessions a year is the threshold we use to determine annual success of the program. Relative to this metric, In calendar 2021 Trane facilitated over 50 customer education sessions with large corporate customers around decarbonization. Preliminary education sessions resulted in ongoing advisory engagements with six different customers that led to on-site decarbonization evaluations, which are on-track for investment and implementation in 2022.

## 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, this includes reporting on energy and GHG performance. At the end of 2021, 100% of preferred suppliers were enrolled in the program.

#### % suppliers by procurement spend that have to comply with this climate-related requirement

52

#### % suppliers by procurement spend in compliance with this climate-related requirement

24

#### 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

## C12.3

(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

**Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate**

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

**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)**

2022-04-15\_Trane Technologies Net Zero Approval Letter\_D02.pdf

2022-04-19\_Trane Technologies Certificate\_D01.pdf

**Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy**

Our management's Annual Incentive Matrix remuneration scheme 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?

**Focus of policy, law, or regulation that may impact the climate**

Adaptation and/or resilience to climate change

Minimum energy efficiency requirements

Other, please specify

**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, CA, NY)
- Various state legislation and national regulation to phase down HFCs (CA, WA, CO, NJ, NY, FL, NC, and EPA).
- ASHRAE building decarbonization task force and the creation of a new carbon standard
- EU Building Performance Directive revisions

**Policy, law, or regulation geographic coverage**

Global

**Country/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.

**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 is aligned with the goals of the Paris Agreement?**

Yes, we have evaluated, and it is aligned

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C12.3b

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**(C12.3b) Provide details of the trade associations your organization 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 consistent with theirs?**

Consistent

**Has your organization influenced, or is your organization attempting to influence their position?**

We publicly promote their current position

**State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)**

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, if applicable (currency as selected in C0.4) (optional)**

**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

---

**Trade association**

Other, please specify (Alliance to Save Energy)

**Is your organization's position on climate change consistent with theirs?**

Consistent

**Has your organization influenced, or is your organization attempting to influence their position?**

We publicly promote their current position

**State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)**

The Alliance to Save Energy is a coalition of prominent business, government, environmental, and consumer leaders who promote the efficient and clean use of energy worldwide to benefit consumers, the environment, the economy, and national security. The Alliance to Save Energy advocates for the most high-impact energy efficiency policies including emission reduction and strong energy codes in buildings and modernization and expansion of tax incentives to properly encourage energy efficiency in the built environment.

**Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)**

**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**

2021-ESG-Report.pdf

**Page/Section reference**

All

**Content elements**

Governance  
Strategy  
Risks & opportunities  
Emissions figures  
Emission targets

**Comment**

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## 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	No, but we plan to have both within the next two years	<Not Applicable>	<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 impact of its value chain on biodiversity?**

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	No, but we plan to assess biodiversity-related impacts within the next two years	<Not Applicable>

## C15.4

**(C15.4) 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	Land/water management Education & awareness

## C15.5

**(C15.5) 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

## C15.6

**(C15.6) 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
No publications	<Not Applicable>	<Not Applicable>

## 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.**

## 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

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SC0.0

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(SC0.0) If you would like to do so, please provide a separate introduction to this module.

N/A

SC0.1

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(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	14136400000

SC1.1

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(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

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(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

SC1.3

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(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

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(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

No

SC1.4b

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(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

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(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

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(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