

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 11-K

ý **ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2023

Or

q **TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File No. 001-34400

- A.** Full title of the plan and address of the plan, if different from that of the issuer named below:

TRANE 401(k) AND THRIFT PLAN
(Full title of the plan)

- B.** Name of the issuer of the securities held pursuant to the plan and the address of its principal executive office:

TRANE TECHNOLOGIES PLC
170/175 Lakeview Drive
Airside Business Park
Swords, Co. Dublin
Ireland

**Trane 401(k) and Thrift Plan
Index
December 31, 2023 and 2022**

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Report of Independent Registered Public Accounting Firm

The Participants and Administrator
Trane 401(k) and Thrift Plan
Davidson, North Carolina

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of Trane 401(k) and Thrift Plan (the "Plan") as of December 31, 2023 and 2022, the related statements of changes in net assets available for benefits for the years then ended, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2023 and 2022, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Basis of Opinion

These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Plan in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Report on Supplemental Information

The supplemental information in the accompanying Schedule of Assets (Held at End of Year) as of December 31, 2023 has been subjected to audit procedures performed in conjunction

with the audit of the Plan's financial statements. The supplemental schedule is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental schedule reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental schedule. In forming our opinion on the supplemental schedule, we evaluated whether the supplemental schedule, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the Schedule of Assets (Held at End of Year) is fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

/s/ Forvis Mazars, LLP

We have served as the Plan's auditor since 2023.

Charlotte, North Carolina

June 28, 2024

Trane 401(k) and Thrift Plan
Statements of Net Assets Available for Benefits
December 31, 2023 and 2022

	2023	2022
Assets		
Investments:		
Plan's interest in Trane Technologies Employee Savings Plan Master Trust (Note 4), at fair value	\$ 205,526,389	\$ 169,718,911
Receivables:		
Employer contributions receivable	113,220	116,235
Participant contributions receivable	121,253	121,148
Notes receivable from participants	6,184,662	5,188,738
Total Receivables	6,419,135	5,426,121
Net assets available for benefits	<u>\$ 211,945,524</u>	<u>\$ 175,145,032</u>

The accompanying notes are an integral part of these financial statements.

Trane 401(k) and Thrift Plan
Statements of Changes in Net Assets Available for Benefits
For the Years Ended December 31, 2023 and 2022

	2023	2022
Additions (deductions) to net assets attributable to:		
Plan's interest in investment income (loss) of the Trane Technologies Employee Savings Plan Master Trust (Note 4)	\$ 44,733,908	\$ (40,056,329)
Interest income on notes receivable from participants	343,644	217,613
Contributions:		
Participant	8,683,813	9,440,369
Employer	7,783,176	8,198,082
Employee rollover	212,099	192,092
Total contributions	16,679,088	17,830,543
Total additions (deductions)	61,756,640	(22,008,173)
Deductions from net assets attributable to:		
Participant withdrawals and distributions	24,714,634	22,776,080
Administrative expenses	241,514	215,724
Total deductions	24,956,148	22,991,804
Net increase (decrease) in net assets	36,800,492	(44,999,977)
Net assets available for benefits		
Beginning of year	175,145,032	220,145,009
End of year	<u>\$ 211,945,524</u>	<u>\$ 175,145,032</u>

The accompanying notes are an integral part of these financial statements.

Trane 401(k) and Thrift Plan
Notes to Financial Statements
December 31, 2023 and 2022

**1 Description of
the Plan**

The following description of the Trane 401(k) and Thrift Plan (the "Plan") provides only general information. More complete descriptions are found in the governing Plan documents and the summary plan descriptions.

History

The Plan is sponsored by Trane U.S. Inc., a U.S. subsidiary of Trane Technologies plc (Trane Technologies plc and Trane U.S. Inc. are collectively referred to as the "Company"). The Company established the Plan effective August 15, 1983 and the Plan was last amended and restated effective January 1, 2015.

General

The Plan is a defined contribution plan with a 401(k) feature generally covering eligible employees under certain collective bargaining agreements, as defined in the Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended ("ERISA").

Fidelity Management Trust Company is the trustee and Fidelity Workplace Services LLC is the recordkeeper of the Plan (collectively "Fidelity"). The Plan's assets are part of the Trane Technologies Employee Savings Plan Master Trust ("Master Trust").

The Benefits Administration Committee of Trane Technologies Company LLC (the "Committee") administers the Plan and is responsible for carrying out the provisions thereof on behalf of the Company. The Benefits Design Committee of Trane Technologies plc approves recommended design changes to the Plan. The Plan requires that the Trane Technologies Stock Fund be an investment option under the Plan. The other investment options available under the Plan from time to time are selected by the Benefits Investment Committee of Trane Technologies plc (the "BIC"). The BIC monitors the investment options offered in the Plan other than those offered through the self-directed brokerage window. Participants direct investments among the Plan's investment options. The Plan is intended to meet the requirements and regulations of ERISA Section 404(c).

Contributions

Participants may elect to contribute up to 50% (in whole percentages) of their eligible compensation, as defined by the Plan, and subject to limits under the U.S. Internal Revenue Code of 1986, as amended (the "IRC"). Participants who have attained age 50 before the end of the plan year are eligible to make catch-up contributions. Participants may change their contribution amounts in accordance with administrative procedures established by the Committee. Participants are also allowed to rollover Plan amounts from certain other tax-qualified plans to the Plan.

The Company may make matching or non-matching contributions subject to the terms of the applicable collective bargaining agreements. All employer contributions will be made in cash and invested in the same manner as the participant contributions. If a participant does not have an investment election on file, Company contributions are invested in the Plan's default

investment fund which is the target date retirement fund corresponding to the participant's anticipated retirement date based on date of birth.

Participants may change their contribution amounts at any time by contacting Fidelity. Participants direct the investment of their contributions into various investment options offered by the Plan. The Plan's assets are held in the Master Trust, together with assets from other participating defined contribution plans sponsored by the Company or its affiliates and intended to qualify under IRC Section 401(a).

Participant Accounts

Each participant's account is credited with the participant's contributions and allocations of (a) the Company's matching contributions or non-matching contributions (if applicable), and (b) Plan earnings (losses) net of investment management fees. Each participant's account is charged with participant withdrawals and disbursements and applicable administrative expenses. Allocations are based on participant contributions, earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting

Participants are vested immediately in their elective contributions plus actual earnings thereon. Vesting in the Company's contribution (whether matching or non-matching) portion of their accounts (if applicable) varies based on the specific collective bargaining agreements. All participants are 100% vested after 3 years of service as defined by the Plan. All Company contributions, not otherwise vested, become 100% vested upon the participant's death or disability (while employed).

Trane 401(k) and Thrift Plan
Notes to Financial Statements
December 31, 2023 and 2022

Notes Receivable from Participants

Subject to certain limitations, participants may borrow up to 50% of their account balance (excluding the balances attributable to Company contributions), but no more than \$50,000 at any one time. The two types of loans available are general purpose loans and home purchase loans (of a principal residence). There is no minimum loan repayment period. The maximum repayment period is five years for a general purpose loan and thirty years for a home purchase loan. The interest rate will be equal to the prime interest rate plus 1.0% in effect on the first day of the month in which the loan application is received. As of December 31, 2023, outstanding loans bore interest rates ranging from 3.25% to 9.50%. Principal and interest are paid ratably through payroll deductions.

Forfeited Accounts

At December 31, 2023 and 2022, forfeited non-vested accounts were \$11,131 and \$48,735, respectively. Forfeited non-vested amounts may be used to reduce future employer contributions. In 2023 and 2022, employer contributions were reduced by \$516,067 and \$546,212 respectively, from forfeited non-vested accounts.

Participant Withdrawals and Distributions

On termination of employment, Plan distributions may be in the form of lump sum or fixed installments. In the case of an employee's termination because of death, the entire account balance is paid to the designated beneficiary under the Plan or, if none is designated, then pursuant to the terms of the Plan. In case of termination because of any reasons other than death, the participant is entitled to the vested balance. The participant may, under certain conditions, take certain in-service withdrawals from the Plan while employed, subject to certain limitations as to purpose and source of the funds.

Subsequent Event

The Plan was amended and restated effective January 1, 2024 to (a) incorporate all prior amendments since the 2015 restatement, (b) add Roth contributions and in-plan Roth conversions, and (c) incorporate certain provisions of the Secure 2.0 Act, including raising the involuntary cash-out limit, increasing the age at which requirement minimum distributions are required, and permitting certain emergency withdrawals.

**2 Summary of
Accounting Policies**

Basis of Accounting

The financial statements of the Plan are prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP").

Use of Estimates

The preparation of financial statements in conformity with GAAP requires the Committee to make estimates and assumptions that affect the reported amounts of assets and liabilities and changes therein, and disclosure of contingent assets and liabilities at the dates of the

financial statements and the reported amounts of additions and deductions from Plan assets during the reporting period. Actual results could differ from those estimates.

Valuation of Investments

Plan investments are included in the Master Trust, which provides unified investment management. Fidelity invests plan assets in various trust investment options at the direction of plan participants and as required by the Plan. Separate participant accounts are maintained by investment option. These accounts record contributions, withdrawals, transfers, earnings and changes in market value.

Investments in the Master Trust are reported at fair value as described in Note 3. The BIC determines the Plan's valuation policies utilizing information provided by investment advisors and custodians. See Notes 3 and 4 for discussion of fair value measurements.

Realized gains or losses on security transactions are recorded on the trade date. Realized gains or losses are the difference between the proceeds received and the security's unit cost. Dividend income is recorded on the record date and interest income is recorded when earned.

Certain investment management fees and expenses charged to the Plan for the investment in the Master Trust are deducted from income earned on a daily basis and are not separately reflected. Consequently, certain investment management fees and operating expenses are reflected as a reduction of investment returns or an increase to investment losses for such investments in the form of an expense ratio.

Trane 401(k) and Thrift Plan
Notes to Financial Statements
December 31, 2023 and 2022

The Statements of Changes in Net Assets Available for Benefits include unrealized appreciation or depreciation in accordance with the policy of stating investments at fair value. Net appreciation or depreciation of investments reflects both realized gains and losses and the change in unrealized appreciation and depreciation of investments.

Valuation of Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus any accrued but unpaid interest. Related fees are recorded as administrative expenses and are expensed when incurred. No allowance for credit losses has been recorded as of December 31, 2023 and 2022. Delinquent participant loans are reclassified as distributions based upon the terms of the Plan document.

Expenses of the Plan

Certain expenses associated with the administration of the Plan and the Master Trust are paid for by the Company and are excluded from these financial statements. Certain general administrative fees are deducted quarterly from Plan accounts and included in these financial statements. Expenses of the funds related to the investment and reinvestment of assets are included in the cost of the related investments. Participant directed transaction expenses such as loan fees, withdrawal fees and fees related to investments in the brokerage accounts are paid by the participant and are included in these financial statements.

Participant Withdrawals and Distributions

Distributions are recorded in the Plan's financial statements when paid. There are no approved and unpaid amounts as of December 31, 2023 and 2022.

Transfer of Assets from Other Plans

Employees may transfer their savings from other plans qualified under the IRC.

3 Fair Value
Measurements

Fair value is defined as the exchange price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Fair value measurements are based on a framework that utilizes the inputs market participants use to determine the fair value of an asset or liability and establishes a fair value hierarchy to prioritize those inputs. The fair value hierarchy is comprised of three levels that are described below:

- Level 1 Inputs to the valuation methodology are based on quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.
- Level 2 Observable inputs other than Level 1. Inputs to the valuation methodology include:
 - Quoted prices for similar assets or liabilities in active markets;

- Quoted prices for identical or similar assets or liabilities in markets that are not active;
- Other inputs that are observable or can be corroborated by observable market data for substantially the full term of the asset or liability

Level 3 Inputs to the valuation methodology are unobservable inputs based on little or no market activity and that are significant to the fair value of the assets and liabilities.

The fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Observable inputs are obtained from independent sources and can be validated by a third party, whereas unobservable inputs reflect assumptions regarding what a third party would use in pricing an asset or liability based on the best information available under the circumstances. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Investment options are not common across all Plans participating in the Master Trust. There have been no changes in the methodologies used as of December 31, 2023 and 2022. There have been no significant transfers between leveling categories. The following is a description of the valuation methodologies used for the Master Trust assets measured at fair value.

Trane Technologies Stock Fund: These assets represent an investment in ordinary shares of the Company. The fund invests in ordinary shares of Trane Technologies plc, which is listed on the New York Stock Exchange ("NYSE") and was valued at its quoted market price at the daily close of the NYSE. Such assets are classified as Level 1.

Trane 401(k) and Thrift Plan
Notes to Financial Statements
December 31, 2023 and 2022

Mutual funds: The shares of registered investment companies are valued at quoted market prices in an exchange or active market, which represent the daily Net Asset Value ("NAV") of shares held by the Master Trust at year end. Investments in registered investment companies generally may be redeemed daily and are classified as Level 1.

Mutual funds - target date retirement funds ((related to employees participating in the Retirement Savings Plan for Participating Affiliates in Puerto Rico, which is part of the Master Trust): These assets represent investments in an asset mix of equity, fixed income and short term investments using an asset allocation strategy appropriate for the fund's particular time frame. The asset mix is determined by a glide path based on the investor's assumed age and target retirement year. These funds are valued at quoted market prices in active markets and are classified as Level 1.

Common collective trusts - index funds: These assets represent investments in common collective trusts that hold equity or fixed income securities. These funds have no unfunded commitments, redemption frequency restrictions, or other redemption restrictions. These assets are not available in an exchange or active market; however, the fair value is determined based on the daily NAV of the underlying assets as traded in an exchange or active market. NAV per share or the equivalent is used for fair value purposes as a practical expedient. NAVs are calculated by the investment manager or sponsor of the fund.

Common collective trusts - target date retirement funds: These assets represent investments in an asset mix of equity, fixed income and short term investments using an asset allocation strategy appropriate for the fund's particular time frame. The asset mix is determined by a glide path based on the investor's assumed age and target retirement year. These funds have no unfunded commitments, redemption frequency restrictions, or other redemption restrictions. These assets are not available in an exchange or active market; however, the fair value is determined based on the daily NAV of the underlying assets as traded in an exchange or active market. NAV per share or the equivalent is used for fair value purposes as a practical expedient. NAVs are calculated by the investment manager or sponsor of the fund.

Separate accounts - fixed income bond funds: These assets are privately managed investments created for a single group of plans in a single master trust maintained by the Company. The fund consists of fixed income securities similar to its benchmark index, the Barclay U.S. Aggregate Bond Index. There are no unfunded commitments, redemption frequency restrictions, or other redemption restrictions. The fair value is determined based on the daily NAV of the underlying assets as traded in an exchange or active market. NAV per share or the equivalent is used for fair value purposes as a practical expedient. NAVs are calculated by the investment manager or sponsor of the fund.

Separate accounts - stable value funds: Investments are privately managed investments created for a single group of plans in a single master trust maintained by the Company. The account primarily consists of investment contracts issued by financial institutions and other eligible stable value investments. The fair value is determined based on the daily NAV of the underlying assets as traded in an exchange or active market. NAV per share or the equivalent is used for fair value purposes as a practical expedient. NAVs are calculated by the investment manager or sponsor of the fund. There are no unfunded commitments or

redemption frequency restrictions. Transfers to other investment funds could be limited under certain conditions.

Self-directed brokerage accounts: Investments in the self-directed brokerage accounts are at current value based on published market quotations from individual investments composing the brokerage accounts. Such assets are classified as Level 1.

The preceding methods may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

4 Investment in the Master Trust

The Plan's investments are held in the Master Trust which was established for the investment of assets of the Plan and several other retirement plans sponsored by the Company. The assets of the Master Trust are held by Fidelity. Each participating retirement plan has an identifiable interest in the Master Trust; however, investment options for participants may vary by plan. Fidelity maintains separate accounting of all contributions, benefit payments and expenses and allocates income (loss) earned and received by the Master Trust on the basis of the adjusted value of each plan at each measurement date.

Trane 401(k) and Thrift Plan
Notes to Financial Statements
December 31, 2023 and 2022

Summarized Master Trust information follows at December 31:

	2023	
	Master Trust Balances	Plan's interest in Master Trust Balances
Investments, at fair value		
Mutual funds	\$ 655,668,111	\$ 9,032,088
Self-directed brokerage accounts	438,171,681	8,682,047
Common collective trusts	3,562,041,591	130,378,428
Separate accounts	295,239,650	9,348,983
Trane Technologies Stock Fund	1,410,563,918	48,084,843
Investments, at fair value	<u>\$ 6,361,684,951</u>	<u>\$ 205,526,389</u>

	2022	
	Master Trust Balances	Plan's interest in Master Trust Balances
Investments, at fair value		
Mutual funds	\$ 510,586,152	\$ 8,172,175
Self-directed brokerage accounts	349,789,219	7,202,069
Common collective trusts	2,921,587,549	107,650,682
Separate accounts	313,547,004	10,413,617
Trane Technologies Stock Fund	1,038,970,351	36,280,368
Investments, at fair value	<u>\$ 5,134,480,275</u>	<u>\$ 169,718,911</u>

The following summarizes the net realized and unrealized appreciation (depreciation) of investments and interest and dividend income for the Master Trust for the years ended December 31:

	2023	2022
Investment income:		
Net appreciation (depreciation) in fair value of investments		
Mutual funds	\$ 128,394,270	\$ (152,958,445)
Self-directed brokerage accounts	84,134,673	(107,708,422)
Common collective trusts	603,076,968	(647,478,904)
Separate accounts	11,358,268	(15,735,642)
Trane Technologies Stock Fund	451,972,186	(224,323,164)
	1,278,936,365	(1,148,204,577)
Interest and dividend income	27,892,277	26,586,806
Total investment income (loss)	<u>\$ 1,306,828,642</u>	<u>\$(1,121,617,771)</u>

Trane 401(k) and Thrift Plan
Notes to Financial Statements
December 31, 2023 and 2022

The following summarizes the classification of the Master Trust investments by classification and method of valuation as of December 31, 2023:

	Level 1	Level 2	Level 3	Not subject to leveling (a)	Total
Master Trust					
Investments at fair value:					
Separate accounts:					
Stable value funds	\$ —	\$ —	\$ —	\$ 187,132,718	\$ 187,132,718
Fixed income bond funds	—	—	—	108,106,932	108,106,932
Mutual funds	632,728,293	—	—	—	632,728,293
Mutual funds - target date retirement funds	22,939,818	—	—	—	22,939,818
Self-directed brokerage accounts	438,171,681	—	—	—	438,171,681
Common collective trusts:					
Index funds	—	—	—	1,297,293,284	1,297,293,284
Target date retirement funds	—	—	—	2,264,748,307	2,264,748,307
Trane Technologies Stock	1,410,563,918	—	—	—	1,410,563,918
Total Investments, at fair value	<u>\$2,504,403,710</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$3,857,281,241</u>	<u>\$6,361,684,951</u>

(a) In accordance with GAAP, certain investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented on the summarized Master Trust Investments, at fair value earlier in this Note.

The following summarizes the classification of the Master Trust investments by classification and method of valuation as of December 31, 2022:

	Level 1	Level 2	Level 3	Not subject to leveling (a)	Total
Master Trust					
Investments at fair value:					
Separate accounts:					
Stable value funds	\$ —	\$ —	\$ —	\$ 204,763,884	\$ 204,763,884
Fixed income bond funds	—	—	—	108,783,120	108,783,120
Mutual funds	493,543,112	—	—	—	493,543,112
Mutual funds - target date retirement funds	17,043,040	—	—	—	17,043,040
Self-directed brokerage accounts	349,789,219	—	—	—	349,789,219
Common collective trusts:					
Index funds	—	—	—	1,040,485,592	1,040,485,592
Target date retirement funds	—	—	—	1,881,101,957	1,881,101,957
Trane Technologies Stock	1,038,970,351	—	—	—	1,038,970,351
Total Investments, at fair value	<u>\$1,899,345,722</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$3,235,134,553</u>	<u>\$5,134,480,275</u>

(a) In accordance with GAAP, certain investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented on the summarized Master Trust Investments, at fair value earlier in this Note.

Trane 401(k) and Thrift Plan
Notes to Financial Statements
December 31, 2023 and 2022

5 Tax Status

The U.S. Internal Revenue Service ("IRS") has determined and informed the Company by a favorable determination letter dated September 12, 2017, that the Plan and related trust are qualified in accordance with applicable sections of the IRC to be exempt from U.S. federal income tax. The Plan has been amended and restated subsequent to the receipt of this favorable determination letter. Although the Plan has been amended and restated since receiving the determination letter, Plan management, the Committee and the Plan's counsel believe that the Plan is being operated in material compliance with the applicable requirements of the IRC and therefore no provision for U.S. federal income tax is required.

GAAP requires Plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Committee has analyzed the tax positions taken by the Plan and has concluded that as of December 31, 2023 and 2022, there are no uncertain positions taken or expected to be taken that would require recognition of a liability or disclosure in the financial statements. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

6 Party-In-Interest Transactions

Certain Plan investments held in the Master Trust are managed by one or more affiliates of Fidelity. These transactions qualify as permitted party-in-interest transactions.

Certain Master Trust investments are ordinary shares of Trane Technologies plc. These transactions qualify as permitted party-in-interest transactions.

Additionally, notes receivable from participants are also considered to be party-in-interest transactions because they are transactions with Plan participants. Fees paid and interest earned during the year, in connection with these parties-in-interest, were based on customary and reasonable rates for such transactions.

7 Plan Termination

Although it has not expressed any intent to do so, the Company has the right under the Plan to modify or discontinue its contributions at any time and to terminate the Plan subject to the provisions of the Plan, ERISA and applicable collective bargaining agreements. In the event of Plan termination, all affected participants would become 100% vested in any unvested Company contributions in accordance with applicable law.

8 Risks and Uncertainties

Through the Master Trust, the Plan provides for investment options in any combination of equity and fixed income investments in the U.S. and abroad through various investment

options. Investment asset classes are exposed to various risks, such as market, interest rate, inflation, foreign currency, economic, political and credit risks. Due to the level of risk associated with the Plan's investments, it is reasonably possible that changes in risks in the near term would materially affect participants' account balances and the amounts reported in the Statements of Net Assets Available for Benefits and the Statements of Changes in Net Assets Available for Benefits.

Trane 401(k) and Thrift Plan
Schedule H, line 4i - Schedule of Assets (Held at End of Year)
December 31, 2023

Plan Sponsor: Trane U.S. Inc.
Employer
Identification: 25-0900465
Plan Number: 043

Identity of issue, borrower lessor, or similar party		Description of investment, including maturity date, rate of interest, collateral par, or maturity value	Cost	Current Value
(a)	(b)	(c)	(d)	(e)
*	Plan's interest in Master Trust, excluding participant loans	Master Trust 3.23% participation	**	\$ 205,526,389
*	Notes receivable from participants ***	Due 01/01/2024 - 08/29/2051 3.25% - 9.50%	—	6,184,662
TOTAL ASSETS (Held at End of Year)				<u>\$ 211,711,051</u>

* Includes assets which represent permitted party-in-interest transactions to the Plan.

** Cost information is not required for participant directed investments; therefore, this information is omitted.

*** The accompanying financial statements classify participant loans as notes receivable from participants.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

TRANE 401(K) AND THRIFT PLAN

Dated: June 28, 2024

By: /s/ Paul Longstreet

Name: Paul Longstreet

Title: Chair, Benefits Administration Committee

EXHIBIT INDEX

Exhibit No.	Description
23.1	Consent of FORVIS, LLP