

Ingersoll-Rand plc
Form 11-K
June 20, 2018

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, 2017

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 401K 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:

INGERSOLL-RAND PLC
170/175 Lakeview Drive
Airside Business Park
Swords, Co. Dublin
Ireland

Trane 401K and Thrift Plan
Index
December 31, 2017 and 2016

	Page
Report of Independent Registered Public Accounting Firm	<u>2</u>
Financial Statements	
Statements of Net Assets Available for Benefits as of December 31, 2017 and 2016	<u>3</u>
Statements of Changes in Net Assets Available for Benefits for the Years Ended December 31, 2017 and 2016	<u>4</u>
Notes to Financial Statements	<u>5</u>
Supplemental Schedule	
Schedule H, Line 4i – Schedule of Assets (Held at End of Year) as of December 31, 2017	<u>12</u>
Signatures	<u>13</u>
Exhibit Index	<u>13</u>
Note: Other schedules required by Section 2520.103-10 of the Department of Labor’s Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Securities Act of 1974 have been omitted because they are not applicable.	

Report of Independent Registered Public Accounting Firm

The Participants and Administrator
Trane 401K and Thrift Plan
Davidson, North Carolina

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of the Trane 401K and Thrift Plan (the "Plan") as of December 31, 2017 and 2016, and the related statements of changes in net assets available for benefits for the years then ended, and the related notes and schedule (collectively referred to as the financial statements). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2017 and 2016, 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 for Opinion

These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on the Plan's 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 audit 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.

Supplemental Information

The supplemental information contained in the Schedule of Assets (Held at End of Year) as of December 31, 2017 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information 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 information. In forming our opinion on the supplemental information, we evaluated whether the supplemental information, 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 supplemental information is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ Cherry Bekeart LLP

We have served as the Plan's auditor since 2015.

Charlotte, North Carolina

June 20, 2018

2

Trane 401K and Thrift
 Statements of Net Assets Available for Benefits
 December 31, 2017 and 2016

	2017	2016
Assets		
Investments:		
Plan's interest in Ingersoll-Rand Employee Savings Plan Master Trust (Note 4), at fair value	\$ 158,347,303	\$ 146,384,085
Receivables:		
Employer contributions receivable	65,953	860,516
Employee contributions receivable	154,073	103,445
Notes receivable from participants	4,654,617	4,652,755
Total Receivables	4,874,643	5,616,716
Net assets available for benefits	\$ 163,221,946	\$ 152,000,801

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

Trane 401K and Thrift
 Statements of Changes in Net Assets Available for Benefits
 Years Ended December 31, 2017 and 2016

	2017	2016
Additions to net assets attributable to:		
Plan's interest in investment income of the Ingersoll-Rand Employee Savings Plan Master Trust (Note 4)	\$28,755,970	\$15,657,175
Interest income on notes receivable from participants	172,870	145,540
Contributions:		
Participant, including rollovers	6,743,801	6,468,532
Employer	2,262,903	3,095,955
Total additions	37,935,544	25,367,202
Deductions from net assets attributable to:		
Participant withdrawals and distributions	26,616,510	12,621,890
Administrative expenses	97,889	73,921
Total deductions	26,714,399	12,695,811
Net increase in net assets	11,221,145	12,671,391
Net assets available for benefits		
Beginning of year	152,000,801	139,329,410
End of year	\$163,221,946	\$152,000,801

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

Trane 401K and Thrift
Notes to Financial Statements
December 31, 2017 and 2016

1 Description of the Plan

The following description of the Trane 401K 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 a defined contribution plan sponsored by Trane U.S. Inc., a U.S. subsidiary of Ingersoll-Rand plc ("IR-plc") (IR-plc, Trane U.S. Inc. and Ingersoll-Rand Company 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 ("Fidelity") is the trustee and recordkeeper of the Plan and the Plan's assets are part of the Ingersoll-Rand Employee Savings Plan Master Trust ("Master Trust").

The Ingersoll-Rand Company Benefits Administration Committee (the "Committee") administers the Plan and is responsible for carrying out the provisions thereof on behalf of the Company. The IR-plc Benefits Design Committee approves recommended design changes to the Plan. The Plan requires that the Ingersoll-Rand 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 IR-plc Benefits Investment Committee. The IR-plc Benefits Investment Committee monitors the investment options offered in the Plan other than those offered through the self-directed brokerage link. Participants direct investments among the Plan's investment options. The Plan intends 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 his or her date of birth.

Participant Accounts

Each participant's account is credited with the participant's contribution 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).

Notes Receivable from Participants

Subject to certain limitations, participants may borrow up to 50% of their savings 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

Trane 401K and Thrift
Notes to Financial Statements
December 31, 2017 and 2016

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, 2017, outstanding loans bore interest rates ranging from 3.25% to 9.50%. Principal and interest are paid ratably through payroll deductions.

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.

Forfeited Accounts

At December 31, 2017 and 2016, forfeited non-vested accounts were \$201,146 and \$6,100, respectively. Forfeited non-vested amounts may be used to reduce future employer contributions. In 2017 and 2016, employer contributions were reduced by \$21,022 and \$61,993 respectively, from forfeited non-vested accounts.

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 revenue and expenses 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. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Benefits Investment Committee 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 for such investments in the form of an expense ratio.

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, 2017 and 2016. Delinquent participant loans are reclassified as distributions based upon the terms of the Plan document.

Trane 401K and Thrift
Notes to Financial Statements
December 31, 2017 and 2016

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. 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, 2017 and 2016.

Transfer of Assets from Other Plans

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

New Accounting Pronouncements

In February 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-06, Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): Employee Benefit Plan Master Trust Reporting. This guidance requires the disclosure of the Plan's dollar amount of their interest in each general type of investment held by the master trust. In addition, the guidance requires disclosure of the master trust's other asset and liability balances and the Plan's interest in each of those other assets and liability balances. This guidance requires retrospective application and is effective for annual reporting periods beginning on or after December 15, 2018. Early adoption is permitted; however, the Plan has elected not to early adopt the ASU. The Company does not expect the adoption of this accounting guidance to have a significant impact on the Plan's financial statements.

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 Trust. During 2017, the Plan reclassified the stable value funds previously held in Level 2 to not subject to leveling due to a change in management's assessments and clarification of the inputs. The assets in Note 4 have been reclassified as of December 31, 2016 to conform to the current year presentation. There have been no other changes in the methodologies used as of December 31, 2017 and 2016. There have been no significant transfers between Level 1 and Level 2 categories. Following is a description of the valuation methodologies used for the Master Trust assets measured at fair value.

Trane 401K and Thrift
Notes to Financial Statements
December 31, 2017 and 2016

Ingersoll-Rand Stock Fund: The Ingersoll-Rand Stock Fund represents investment in IR-plc ordinary shares, along with a minor amount of short-term investments, to provide liquidity. There are no unfunded commitments, redemption frequency restrictions, or other redemption restrictions. The shares of the fund are valued at the daily net asset value (“NAV”) of shares held by the Master Trust at year end. 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. The fund primarily invests in ordinary shares of IR-plc, which is traded on the NYSE and is valued at its quoted market price at the daily close of the NYSE. A small portion of the fund is invested in short-term money market instruments.

Schlumberger (formerly Cameron) Stock Fund: The Schlumberger Stock Fund represented investment in shares of Schlumberger Limited. On April 1, 2016, Schlumberger Limited purchased all outstanding shares of Cameron International Corporation. The Schlumberger Stock Fund is a closed investment option, available only to participants in the Ingersoll-Rand Individual Account Retirement Plan for Bargaining Unit Employees at the Buffalo, New York Plant. The fund invested in shares of Schlumberger Limited, which is traded on the NYSE and is valued at its quoted market price at the daily close of the NYSE. The Schlumberger Stock Fund was eliminated effective August 24, 2016 with all remaining participant balances in the fund liquidated and reinvested in the Plan's target date retirement fund corresponding to the participant's date of birth. Such assets are classified as Level 1.

Mutual funds: The shares of registered investment companies are valued at quoted market prices in an exchange or active market, which represent the daily 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.

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 factors such as the investor's 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 employer. 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 employer. 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, the trustee for the Plan. Each participating retirement plan has an identifiable interest in the Master Trust; however, investment options for participants may vary

Trane 401K and Thrift
Notes to Financial Statements
December 31, 2017 and 2016

by plan. Fidelity maintains separate accounting of all contributions, benefit payments and expenses and allocates income earned and received by the Master Trust on the basis of the adjusted value of each plan at each measurement date. As of December 31, 2017 and 2016, the Plan had a 3.17% and 3.45%, respectively, participation in the Master Trust.

Summarized Master Trust information follows at December 31:

	2017	2016
Investments, at fair value		
Mutual funds	\$468,554,273	\$375,178,274
Self-directed brokerage accounts	348,321,774	302,715,812
Common collective trusts	2,888,084,095	2,363,704,938
Separate accounts	333,894,504	344,515,553
Ingersoll-Rand Stock Fund	957,631,804	862,147,714
Investments, at fair value	\$4,996,486,450	\$4,248,262,291

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

	2017	2016
Investment income:		
Net appreciation in fair value of investments		
Mutual funds	\$81,455,628	\$31,034,661
Self-directed brokerage accounts	45,949,180	15,702,537
Common collective trusts	464,993,866	127,968,265
Separate accounts	11,315,193	7,548,141
Ingersoll-Rand Stock Fund	148,040,970	216,157,182
Schlumberger (formerly Cameron) Stock Fund	—	225,066
	751,754,837	398,635,852
Interest and dividend income	30,772,014	28,451,874
Total investment income	\$782,526,851	\$427,087,726

Trane 401K and Thrift
Notes to Financial Statements
December 31, 2017 and 2016

The following summarizes the classification of the Master Trust investments by classification and method of valuation as of December 31, 2017:

	Level 1	Level 2	Level 3	Not subject to leveling (a)	Total
Master Trust					
Investments at fair value:					
Separate accounts:					
Stable value funds	\$—	\$ —	—	—\$169,720,687	\$169,720,687
Fixed income bond funds	—	—	—	164,173,817	164,173,817
Mutual funds	468,554,273	—	—	—	468,554,273
Self-directed brokerage accounts	348,321,774	—	—	—	348,321,774
Common collective trusts:					
Index funds	—	—	—	1,161,200,920	1,161,200,920
Target date retirement funds	—	—	—	1,726,883,175	1,726,883,175
Ingersoll-Rand Stock Fund	—	—	—	957,631,804	957,631,804
Total Investments, at fair value	\$816,876,047	\$ —	—	—\$4,179,610,403	\$4,996,486,450

(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, 2016:

	Level 1	Level 2	Level 3	Not subject to leveling (a)	Total
Master Trust					
Investments at fair value:					
Separate accounts:					
Stable value funds	\$—	\$ —	—	—\$179,564,496	\$179,564,496
Fixed income bond funds	—	—	—	164,951,057	164,951,057
Mutual funds	375,178,274	—	—	—	375,178,274
Self-directed brokerage accounts	302,715,812	—	—	—	302,715,812
Common collective trusts:					
Index funds	—	—	—	949,865,814	949,865,814
Target date retirement funds	—	—	—	1,413,839,124	1,413,839,124
Ingersoll-Rand Stock Fund	—	—	—	862,147,714	862,147,714
Total Investments, at fair value	\$677,894,086	\$ —	—	—\$3,570,368,205	\$4,248,262,291

(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.

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. 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.

Trane 401K and Thrift
Notes to Financial Statements
December 31, 2017 and 2016

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 plan administrator has analyzed the tax positions taken by the Plan and has concluded that as of December 31, 2017 and 2016, 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 Fidelity Management Trust Company, the Plan's trustee and recordkeeper. These transactions qualify as permitted party-in-interest transactions.

Certain Master Trust investments are units of the Ingersoll-Rand Stock Fund which primarily invests in ordinary shares of IR-plc. These transactions qualify as permitted party-in-interest 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.

Schedule I

Trane 401K and Thrift
 Schedule H, line 4i – Schedule of Assets (Held at End of Year)
 December 31, 2017

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

(a)	(b)	(c)	(d)	(e)
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
*	Plan's interest in Ingersoll-Rand Master Trust, excluding participant loans	Master Trust 3.17% participation Due 01/01/2018 - 04/30/2047	**	\$ 158,347,303
***	Notes receivable from participants	3.25% - 9.50%	—	4,654,617
TOTAL ASSETS (Held at End of Year)				\$ 163,001,920

*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 401K AND THRIFT PLAN

Dated: June 20, 2018 By: /s/ Paul Longstreet

Name: Paul
Longstreet
Title: Benefits
Administration
Committee

EXHIBIT INDEX

Exhibit No. Description

23.1 Consent of Cherry Bekaert LLP

13