



Fourth-Quarter and Full Year 2022 Results

February 2, 2023



Forward-Looking Statements

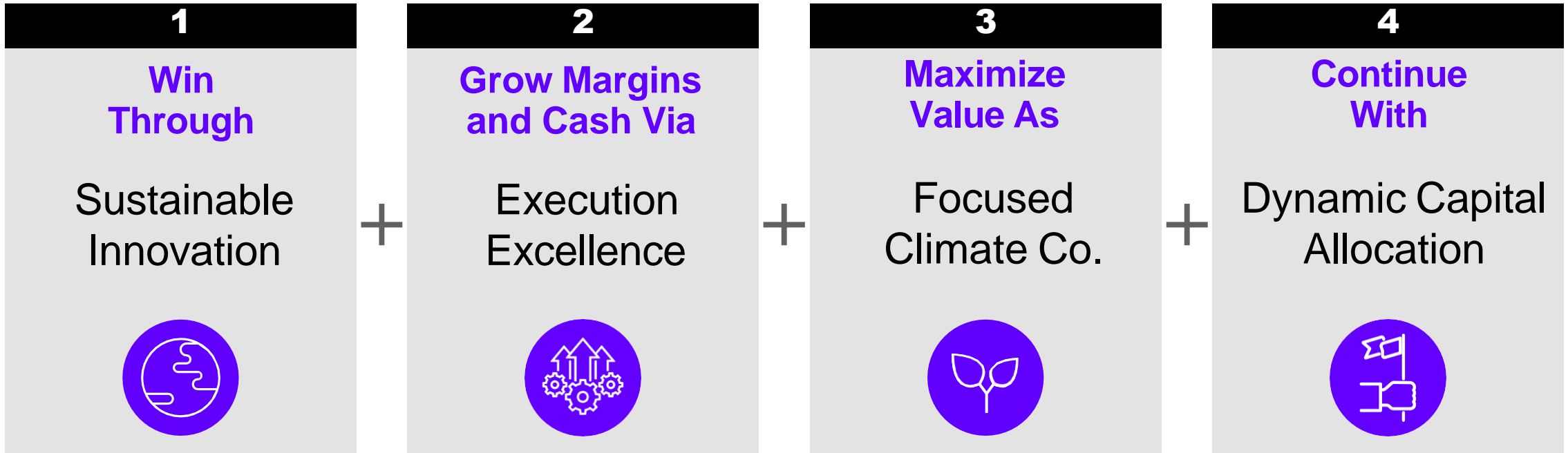
This presentation includes “forward-looking statements” which are statements that are not historical facts, including statements that relate to our future financial performance and targets, including revenue, EPS and operating income; our business operations; demand for our products and services including bookings and backlogs; capital deployment, including the amount and timing of our dividends and our share repurchase program, including the amount of shares to be repurchased and the timing of such repurchases; our capital allocation strategy, including acquisitions (if any); our projected free cash flow and usage of such cash; our available liquidity; performance of the markets in which we operate; and restructuring activity and cost savings associated with such activity; and our effective tax rate.

These forward-looking statements are based on our current expectations and are subject to risks and uncertainties, which may cause actual results to differ materially from our current expectations. Such factors include, but are not limited to, global economic conditions, including recessions and economic downturns, inflation, volatility in interest rates and foreign exchange; changing energy prices; the impact of the global COVID-19 pandemic or future health care emergencies on our business, our suppliers and our customers; the Russia-Ukraine conflict; climate change and our sustainability strategies and goals; commodity shortages; supply chain constraints and price increases; government regulation; restructurings activity and cost savings associated with such activity; secular trends toward decarbonization, energy efficiency and internal air quality, the outcome of any litigation, including the risks and uncertainties associated with the Chapter 11 proceedings for our deconsolidated subsidiaries Aldrich Pump LLC and Murray Boiler LLC; cybersecurity risks; and tax audits and tax law changes and interpretations.

Additional factors that could cause such differences can be found in our Form 10-K for the year ended December 31, 2021, as well as our subsequent reports on Form 10-Q and other SEC filings. We assume no obligation to update these forward-looking statements.

This presentation also includes non-GAAP financial information which should be considered supplemental to, not a substitute for, or superior to, the financial measure calculated in accordance with GAAP. The definitions of our non-GAAP financial information are included as an appendix in our presentation and reconciliations can be found in our earnings releases for the relevant periods located on our website at www.tranetechnologies.com. Unless otherwise indicated, all data beyond the fourth quarter of 2022 are estimates.

Focused Strategy Delivers Differentiated Shareholder Returns



Strong Foundation

Strong operating system and performance culture

Powerful cash flow

Uplifting culture – integrity, ingenuity, community & engagement

Top Quartile Q4 & 2022; Robust Backlog Supports Strong 2023 Outlook Underpinned by Growing Demand for Sustainable Solutions

- **Strong execution in Q4 and close to 2022**
 - 2022 organic revenues* up 15%; adj. EPS* up 21%; organic bookings* up 5% (2-yr stack up 32%)
 - Q4 organic revenues up 16%; adj. EPS up 34%; organic bookings flat (2-yr stack up 27%)
 - Solid incremental margins despite material / other inflation related to supply chain, higher costs to serve customers and high levels of business reinvestment
- **Continued strong execution delivered incremental price / volumes up ~10% / ~5% in 2022 including ~10% / ~6% in Q4**
 - Leveraging best-in-class Business Operating System (BOS) to stay ahead of inflation and deliver positive price / cost on a dollar basis
- **Broad-based demand continued throughout 2022 for our innovative products and services, particular strength in global CHVAC solutions**
 - 2022 global CHVAC organic bookings up nearly 40% on 2-yr stack; Led by Americas CHVAC organic bookings up more than 40+% on 2-yr stack
 - 2022 book-to-bill of 109%; Q4 book-to-bill of ~100%, combined with 16% revenue growth, demonstrating high absolute bookings and strength of backlog
- **Well-positioned for continued profitable growth in 2023**
 - Ending backlog of \$6.9B up 27% Y-O-Y or more than 2X historical norms
 - Backlog expected to remain significantly elevated through 2023; strong visibility and revenue support
- **Balanced capital allocation in 2022; financial position, liquidity and balance sheet bolster resilience and optionality for 2023**
 - 2022 deployed \$2.1B including \$620M to dividends, \$1.2B to share repurchases and \$256M to M&A; expect capital deployment of ~\$2.5 billion in 2023
 - 2022 FCF of \$1.6B or ~91% of adj. net income; fundamental FCF remains robust; strong Q4 shipments pushed receivables into Q1 2023
- **Initiating strong 2023 revenue and EPS guidance**
 - 2023 organic revenue growth guidance of approximately +6% to +8%
 - 2023 adj. EPS guidance range of \$8.20 to \$8.50, up 11.4% to 15.5% from 2022 (see p. 11 for more detail)
- **Proven strategy and track record of strong execution driving superior innovation for customers at apex of secular megatrends of decarbonization, energy efficiency and IAQ continues to support differentiated financial performance and shareholder returns over the long term**

* Includes certain Non-GAAP financial measures. See the company's Q4 2022 earnings release for additional details and reconciliations..

Strong Execution in 2022; Exceeded Financial Commitments & Delivered 20+% Adj. EPS Growth Despite Challenging Macroenvironment

	2022 Initial Guidance**	2022 Actual Results*	
Organic Revenue*	+HSD	+15%	✓+
Organic Operating Leverage*	~20%	18%	✓
Adj. EPS*	\$6.95 to \$7.15	\$7.36	✓+
Free Cash Flow*	≥ Adj. Net Earnings	91% Adj. Net Earnings	⊖

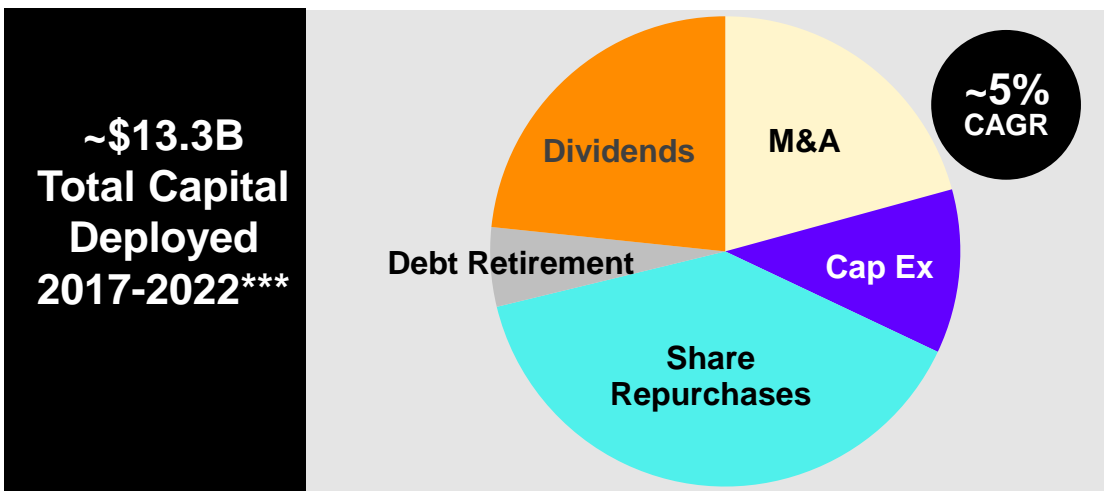
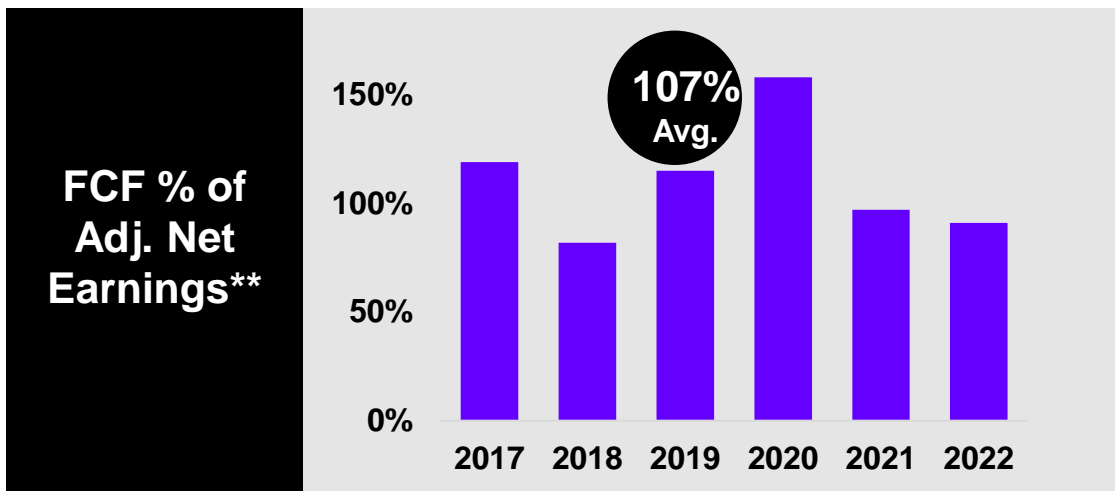
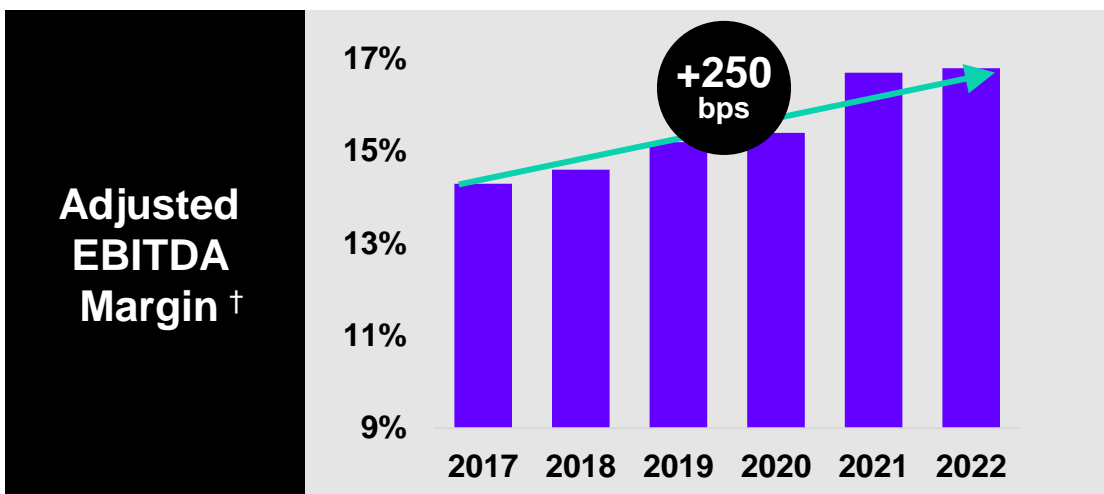
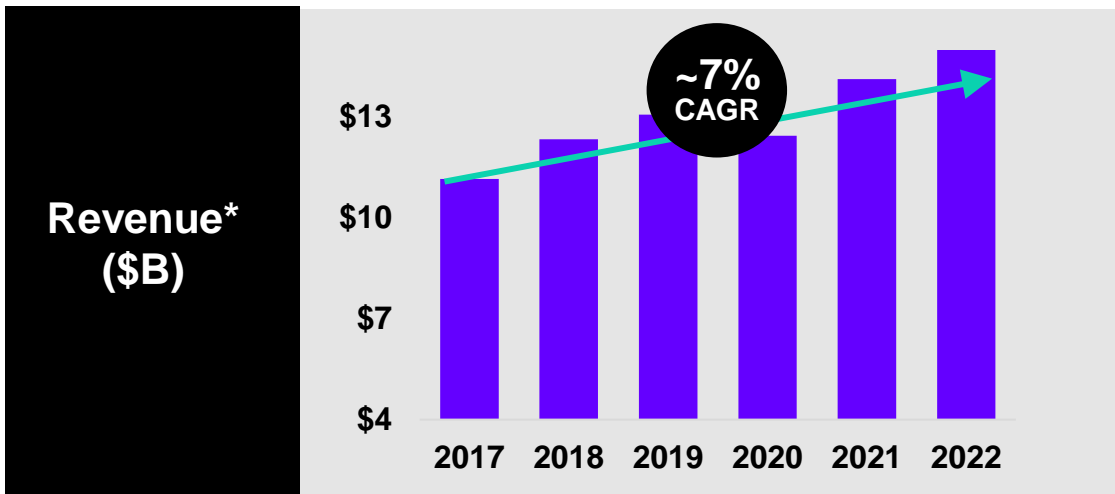


- Robust revenue, end market outgrowth and strong margin expansion
- Strong organic operating leverage despite persistent high inflation and supply chain challenges
- Powerful free cash flow of ~\$1.6B; 91% FCF conversion reflects ~\$150M timing of receivables (shift from Q4 '22 to Q1 '23), \$40M investment in additional safety stock

* Includes certain Non-GAAP financial measures. See the company's Q4 2022 earnings release for additional details and reconciliations.

** Initial 2022 guidance, January 31, 2022

Relentless Investments in Innovation, Customer Focus and Best-in-Class Business Operating System Driving Top-Quartile Financial Performance



* 2017, 2018, 2019 and 2020 historical information restated to reflect Ingersoll Rand Industrial segment in discontinued operations
 ** 2017 and 2018 free cash flow conversion history based on pre-RMT transaction consolidated Ingersoll Rand financial statements
 ***2017, 2018 and 2019 capital deployment based on pre-RMT transaction consolidated Ingersoll Rand financial statements
 † 2018, 2019 and 2020 historical information restated to reflect Ingersoll Rand Industrial segment in discontinued operations. 2017 calculated based on historical Climate segment adj. op. inc. less adj. unallocated corporate costs divided by Climate segment revenues

Robust Bookings and Backlog Entering 2023; Strong Revenue Growth and Demand

	Q4 Organic* Y-O-Y Change	
	Bookings	Revenue
Enterprise	flat	+ 16%
Americas	flat	+ 14%
Commercial HVAC	+	+
Residential HVAC	-	+
Transport	-	+
EMEA	+ 2%	+ 23%
Commercial HVAC	+	+
Transport	-	+
Asia Pacific	- 6%	+ 19%
Commercial HVAC	-	+
Transport	-	-

Americas

- CHVAC bookings up low-teens, 2-yr stack up nearly 40%; Revs up mid-teens with equip up 20+% and svcs up high-single digits
- Resi HVAC revs up low-single digits; sell-through up mid-single digits; bookings down mid-20's on strong PY comp; 2-yr stack up double digits
- Transport revs up ~30%; bookings normalizing as expected on strong PY comp; 2-yr stack up 40+%; 2H'23 order book not open yet
- Americas backlog is 3x historical norms entering 2023

EMEA

- CHVAC revs up 40+%, w/ both equip and svcs up double digits; CHVAC bookings up low-teens; 2-yr stack up 20+%
- Transport revs up LSD; bookings normalizing as expected on strong PY comp
- EMEA backlog approximately 40% higher than historical norms entering 2023

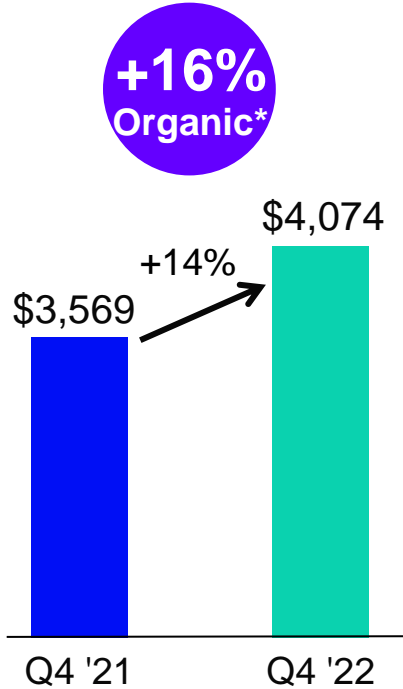
Asia Pacific

- CHVAC revs up 20+%, w/ equip up 20+%, svcs up mid-teens
- Asia bookings growth down mid-single digits on strong PY comp, 2-yr stack up high-teens; CHVAC FY 2022 bookings up low-teens
- China revs / bookings strong, up double digits / high-single digits, respectively
- Asia backlog approximately 50% higher than historical norms entering 2023

*Organic bookings and organic revenues exclude acquisitions and currency

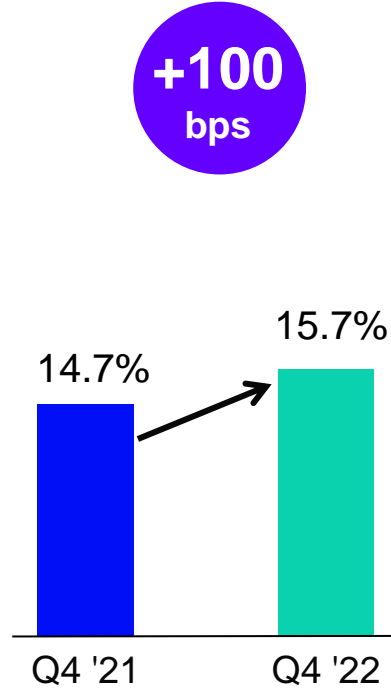
Strong Revenue Growth, Margin Expansion and EPS Growth

Net Revenue



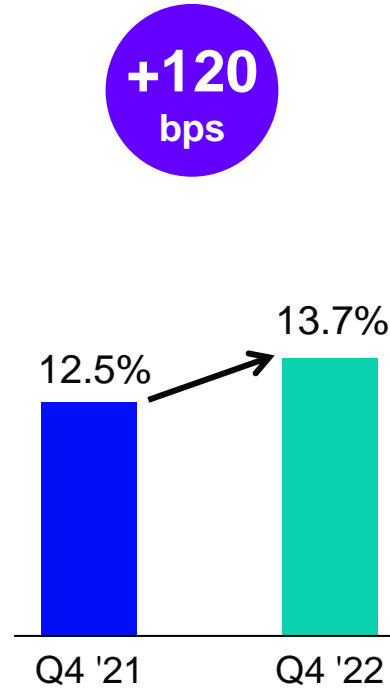
- Strong organic revenue growth with equip up high-teens and svcs up low-teens

Adj. EBITDA Margin*

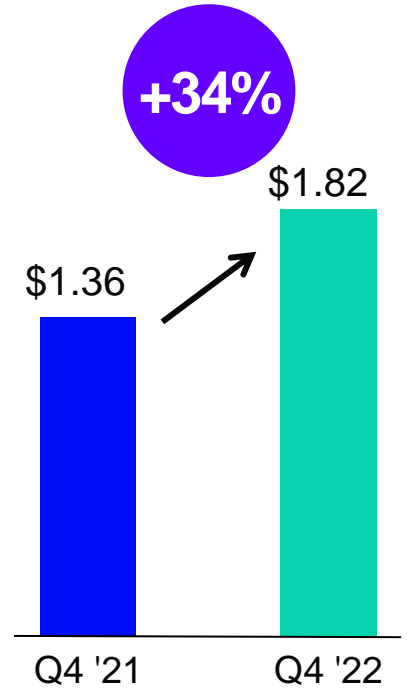


- Strong margin expansion on revenue growth, price and volumes
- Positive price / cost on a dollar basis despite persistent material inflation
- Productivity continues to be impacted by supply chain & higher costs to serve customers in near term (e.g., spot buys, expedited freight)
- Continued business reinvestment in innovation, technology and productivity

Adj. Operating Margin*



Adj. Continuing EPS*



- Strong growth primarily driven by strong op performance, higher op income and op margin expansion
- Lower adj. eff tax rate (14.4%) on global mix and discrete items

*Includes certain Non-GAAP financial measures. See the company's Q4 2022 earnings release for additional details and reconciliations.

Strong Broad-Based Organic Revenue Growth and Margin Expansion

\$M	Revenue Org.* Growth	Adj. EBITDA*% vs PY	Adj. OI*% vs PY	Highlights
Americas	\$3,140 +14%	16.6% +70 bps	14.6% +100 bps	<ul style="list-style-type: none"> • Strong broad-based margin expansion • Robust volume growth, positive price realization and productivity more than offset persistent material and other inflation related to supply chain challenges and higher costs to serve customers • High incremental business reinvestment in each segment supporting sustainability strategy, innovation and growth initiatives
EMEA	\$559 +23%	16.5% +80 bps	15.5% +150 bps	
Asia Pacific	\$376 +19%	21.2% +200 bps	20.4% +240bps	

* Includes certain Non-GAAP financial measures. See the company's Q4 2022 earnings release for additional details and reconciliations.

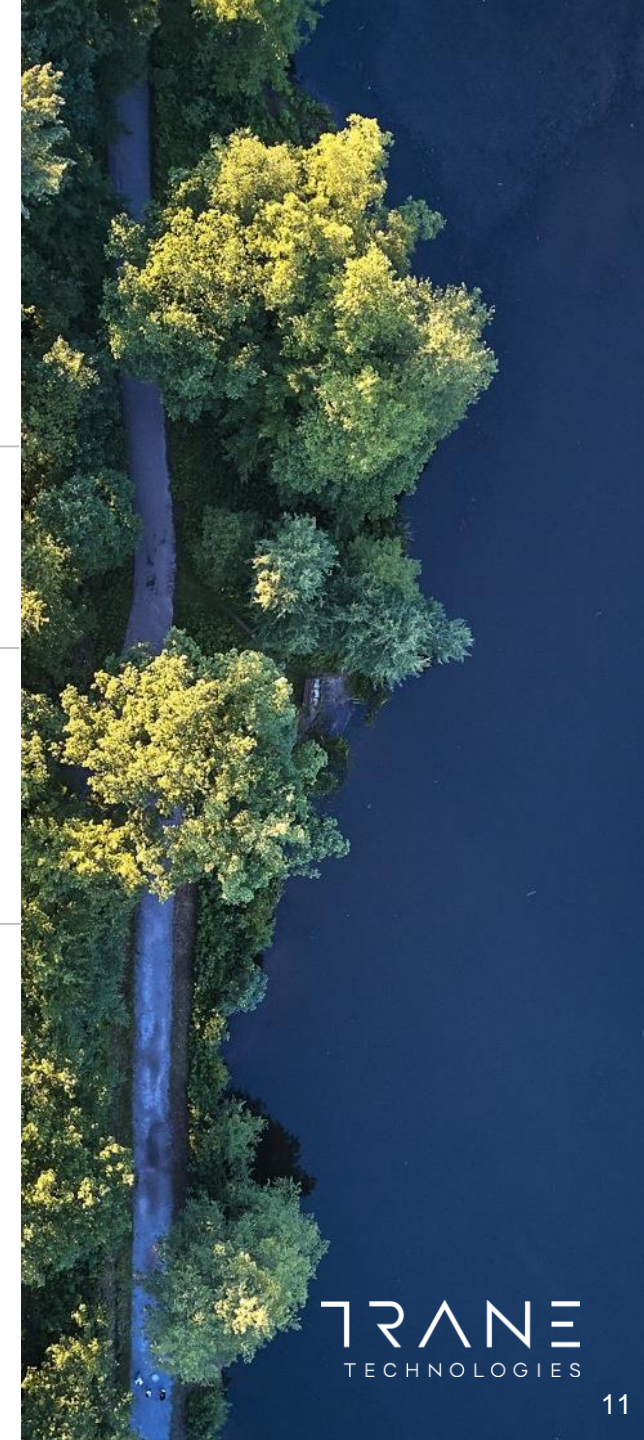
Strong Bookings & Backlog, Leading Innovation, Strong Market Positioning Provides Solid Foundation and Visibility for 2023

<p>Americas</p>	<p>Commercial HVAC</p> <ul style="list-style-type: none"> • Expect continued strong growth in 2023 • Strong demand for innovative solutions driving all-time high backlog; Data center / education / healthcare / high tech industrial - all remain strong • Leading systems & services portfolio, best-in-class execution through BOS; customers' partner of choice for decarb, energy efficiency & healthy spaces • <i>Regulatory tailwinds - (e.g., Inflation Reduction Act (IRA); Education stimulus - ESSER Funding; CHIPS and Science ACT; SEER changes for 2023)</i> <p>Residential HVAC</p> <ul style="list-style-type: none"> • Environment remains dynamic. Tailwinds: elevated backlog, strong price execution, regulatory and policy initiatives • Tough comps from PY and normalization of bookings and lead times; helping IWD customers manage inventory position • <i>Regulatory tailwinds – (e.g., Inflation Reduction Act (IRA); SEER changes for 2023)</i> • Expect <u>residential market units</u> down ~(MSD), revenues flat <p>Transport</p> <ul style="list-style-type: none"> • Weighted avg mkt growth outlook flat in 2023; underlying refrigerated trailer demand solid; 2023 ACT up ~1.5%. Expect TK to outperform end markets on customer demand for innovative solutions
<p>EMEA</p>	<p>Commercial HVAC</p> <ul style="list-style-type: none"> • Continued underlying demand for innovative, sustainability-focused products and services; energy concerns elevating demand for Thermal Management Systems • <i>Regulatory tailwinds – (e.g., 2030 EU Climate and Energy Framework)</i> <p>Transport</p> <ul style="list-style-type: none"> • Weighted average market growth down LSD to MSD in 2023 partly reflecting economic uncertainty in region; continue to see high level of demand for our innovative products and solutions. Expect TK to outperform end markets. • Higher diesel prices help stimulate demand for our solutions, the highest efficiency solutions on the market
<p>Asia Pacific</p>	<p>China</p> <ul style="list-style-type: none"> • Environment remains dynamic; optimistic as China reopens; government support for economy improving; end markets stable with continued strength in data center, electronics, pharma, healthcare <p>Rest of Asia</p> <ul style="list-style-type: none"> • Outlook remains mixed

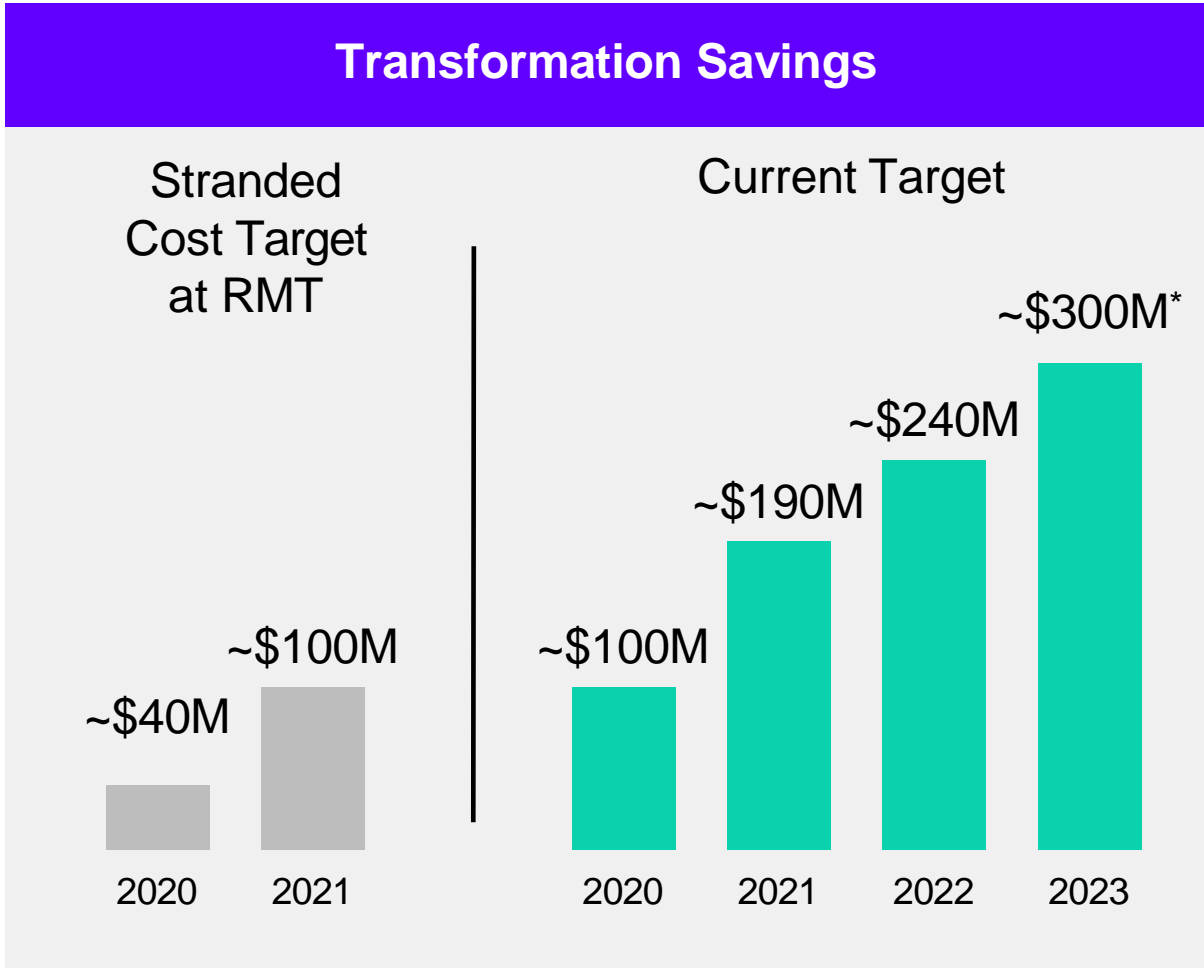
Leveraging Value Creation Flywheel to Drive Strong Revenue, EPS Growth and FCF in 2023

Organic Revenues*	+6% to +8% (+7% to +9% reported)	<ul style="list-style-type: none"> Continued high levels of demand; share gain Record backlog ~\$7B Reported includes ~+1 point M&A
Adj. EPS	\$8.20 to \$8.50 (+11.4% to +15.5%)	<ul style="list-style-type: none"> Strong organic leverage, margin expansion
Operating Leverage*	Organic 25%+	<ul style="list-style-type: none"> Strong incrementals on vol, price, mix Cont'd tight but slowly improving supply chain, persistent inflation, esp. tier II mat'l, labor, energy Above average incremental investment (normal range ~40 bps year)
Free Cash Flow	= / > Adj. Net Earnings	<ul style="list-style-type: none"> Capex ~1.5% to ~2% of revs – including adv. manufacturing / automation, electrification platforms Expect modest working capital investment

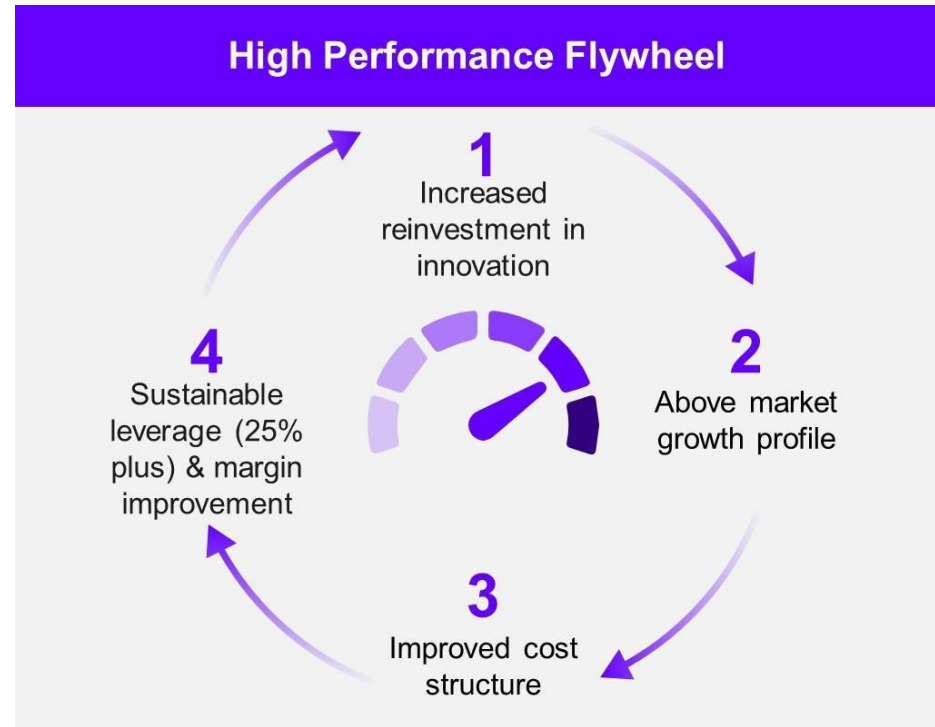
*Reported includes M&A of ~ +1% revenues @ ~3% OI (~2 point impact to enterprise leverage; expect FY FX flat)



On Track For ~\$300M Total Transformation Savings by Year-End; Business Operating System to Drive Strong Productivity / Cost Savings Over Long Term



- Delivered ~\$50M incremental savings in 2022
- Targeting delivery of incremental savings of ~\$60M in 2023
- ~\$300M transformation savings adds fuel to high-performance flywheel



* Expenses Related to Achieving Cost Reductions \$100M - \$150M through 2022; ~\$1.2M spent in Q4; ~\$130M cumulative 2020, 2021 and 2022.

Strong FCF Drives Continued Balanced Capital Deployment Strategy

1

Invest for Growth

- Strengthen the core business and extend product & market leadership
- Invest in new technology and innovation
- Strategic investments in value-accretive M&A

2

Maintain Healthy, Efficient Balance Sheet

- Expect to deliver FCF* \geq 100% of adjusted net earnings
- Strengthening balance sheet
- Strong BBB investment grade rating offers optionality as markets evolve

3

Return Capital to Shareholders

- Expect to consistently deploy 100% of excess cash over time
- Pay competitive dividend and grow dividend at or above rate of earnings growth over time
- Repurchase shares with excess cash when intrinsic value provides high returns

* Includes certain Non-GAAP financial measures. See the company's Q4 2022 earnings release for additional details and reconciliations.

Strong, Balanced Capital Allocation in 2022; Targeting Additional Deployment of ~\$2.5B in 2023

Balanced Capital Deployment

	Actual FY 2022	Target FY 2023
Dividends	\$0.6B	~\$0.6B
M&A, investments	\$0.3B	~\$1.9B
Share repurchases	\$1.2B	
Total Capital Deployed	\$2.1B	~\$2.5B
Other cash*	\$270M	-

Capital Deployment

- Q4 Share repurchases of \$300M (FY \$1.2B); ~\$3.2B remaining authorization
- Q4 dividends of \$153M (FY \$620M)
- M&A pipeline remains active; maintain disciplined approach
- Shares remain attractive, trading below intrinsic value
- Targeting \$2.5B Capital Deployment in 2023

*\$270M cash related to creating a qualified settlement fund which we funded during Q1 2022 (for more info see 8-K filed 9/24/2021 and other SEC filings)



Topics of Interest

Thermo King Significantly Outperformed End Markets in 2022; Expect Continued Outperformance in 2023

N.A. and EMEA Market Results / Forecast

Actual 2022 Transport
N.A. Market
Trailer / Truck / APU wtd avg
+13%
(Actual Thermo King 20+%)

2023 Transport N.A.
Market Outlook*
Trailer / Truck / APU wtd avg
Flat

Actual 2022 Transport
EMEA Market**
Trailer / Truck wtd avg
-15%
(Actual Thermo King +HSD)

2023 Transport EMEA
Market Outlook**
Trailer / Truck wtd avg
-LSD to -MSD

Source: ACT / IHS / Company Estimates

*Includes 2023 N.A. ACT Trailer build fcst of ~45K, or ~1.5% growth
** Reflects removal of Russia from EMEA Mkt Sizing

N.A., EMEA Markets Expected to be Flat to Modestly Lower in 2023

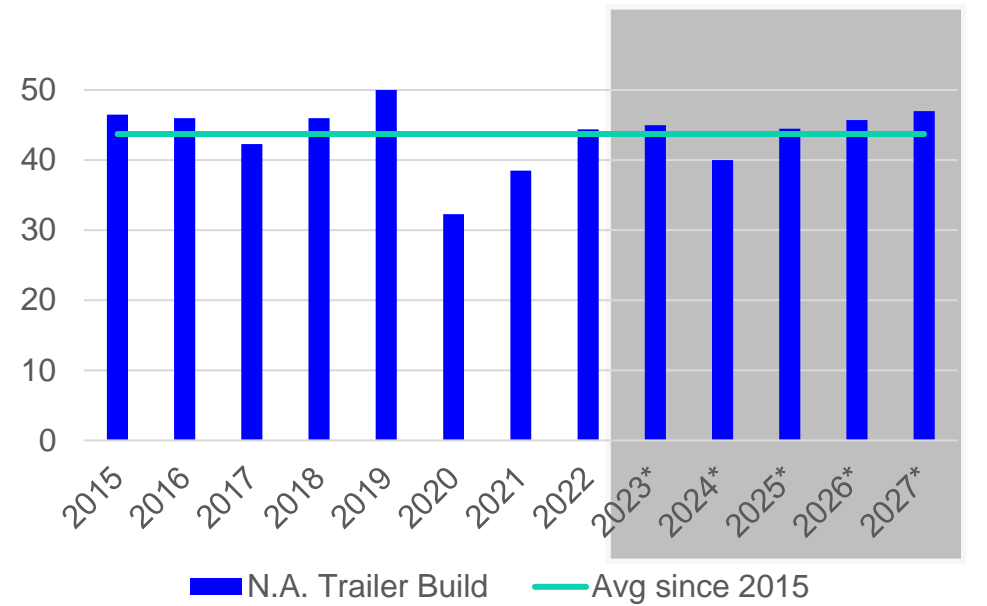
- **Trailer/Truck/APU: ~2/3rds of Total Transport Revenue**
 - N.A. growth estimates flat; EMEA growth estimates -LSD to -MSD
- **Marine/Bus/Rail/Air/Aftermarket (“all other”): ~1/3rd of Total Transport Revenue**
 - N.A. and EMEA weighted avg. growth estimates flat
- **Diversified Americas / EMEA Thermo King significantly outperformed end markets in 2021 and 2022; expect continued outperformance in 2023**

Total Transport wtd avg growth: Truck/Trailer/APU/Marine/Bus/Rail/Air					
	2021 Mkt	2021 TK	2022 Mkt	2022 TK	2023 Mkt
Americas	15%	30+%	12%	20+%	Flat
EMEA	13%	20+%	-9%	+HSD	-LSD to -MSD

Note-Global Thermo King is ~15% of enterprise revenues. Americas / EMEA / Asia represent ~60% / ~35% / ~5% of global Thermo King revenues, respectively

North America Refrigerated Trailer Outlook – ACT Forecasts Dips to 40K Units in 2024, Rebounds in 2025, Growth in 2026 and 2027

North America Trailer Market Outlook



* Forecast shown in grey
Source: ACT

Comments

- Underlying refrigerated trailer demand remains high, 45K units / year
- Strong demand forecast through 2027
- Diversified Americas / EMEA Thermo King businesses poised to outperform end markets w/ cont'd innovation / execution

IN SUMMARY

Positioned to Outperform. Consistently.

Secular Tailwinds

The markets we serve will continue to outgrow GDP, fueled by long-term sustainability megatrends

Sustainability Focused Innovation

We are positioned to outgrow the market and expand margins with market-leading sustainable innovations

Margin Expansion

Our execution excellence and transformational work position us to maximize margins and cash generation

Financial Strength

Our strong balance sheet, exceptional cash generation and balanced capital allocation strategy deliver significant value to shareholders



Appendix

FY 2023 Detailed Guidance for Modeling Purposes







Metric	FY Guidance	Commentary
Organic Revenue*	+6% to +8%	<ul style="list-style-type: none"> 25%+ organic leverage
M&A	+1%	<ul style="list-style-type: none"> M&A carries 3% leverage - nominal contribution given year 1 integration costs. Impact to total company leverage is minus ~(2) points
Reported Revenue	+7% to +9%	
FX	Neutral to FY	<ul style="list-style-type: none"> Expect Q1 FX rev headwind of ~2% and (\$6M) OI (-\$0.02 EPS)
Adj. EPS*	\$8.20 to \$8.50 (+11.4% to +15.5%)	<div style="background-color: #0000FF; color: white; padding: 5px; text-align: center;">Other Items</div> <ul style="list-style-type: none"> ~\$250M Corporate Costs – Includes corp. wide initiatives around digital, factory automation and electrification ~\$229M Interest Expense – Includes refinancing \$700M debt in 2023 ~19% to ~20% Adj. Eff. Tax Rate ~230M Diluted Shares ~\$30M in transformation and other restructuring costs (~\$0.10 excluded from adj. EPS)** Above average incremental investment (normal range ~40 bps year)

*Includes certain Non-GAAP financial measures. See the company's Q4 2022 earnings release for additional details and reconciliations.

**Supports initiatives to deliver ~\$300M in annualized savings by YE 2023 (3X initial \$100M RMT stranded cost reduction target)

Trane Technologies Core Sustainability Strategy: Challenge Possible

Global Megatrends

 CLIMATE CHANGE	 DEMOGRAPHICS
 URBANIZATION	 DIGITAL CONNECTEDNESS
 RESOURCE SCARCITY	 INDOOR AIR QUALITY (IAQ)

Our Commitments

The Gigaton Challenge

Reducing one gigaton of carbon emissions (CO₂e) from our customers' footprint by 2030

Leading by Example

Achieving carbon neutral operations, 10% absolute energy reduction, zero waste to landfill and net positive water

Opportunity for All

Creating gender parity in leadership, workforce diversity, investing in STEM education

Material Issues to Focus Our Efforts

Operations

Emissions intensity
Renewable energy
Water usage
Heating electrified

Products and Services

Energy efficiency
Low-emission products
Technology & innovation
Emerging market innovations
Product life cycle

Supply Chain

Responsible sourcing
Supplier diversity

Employees

Diversity and inclusion
Ethics and integrity
Safety
Development
Engagement

Communities

Access to cooling
Food and wellness
Education
Workforce development

Governance

Board oversight
Financial performance
Public policy

Targets Align with Global Priorities



2 Zero Hunger 	4 Quality Education 	5 Gender Equality 	6 Clean Water & Sanitation 	7 Affordable & Clean Energy 	8 Decent Work & Economic Growth 	9 Industry, Innovation & Infrastructure 	11 Sustainable Cities & Communities 	12 Responsible Consumption & Production 	13 Climate Action 
---	---	---	--	---	---	---	---	---	---

We believe in ambitious goals founded in science
Trane Technologies is 1st in industry to be Net-Zero Approved by the Science-Based Targets Initiative (SBTi)

Driving Performance Through Sustainability

Before 2010

Focus on environmental and safety compliance



2010

Center for Energy Efficiency & Sustainability (CEES) is founded and begins operating

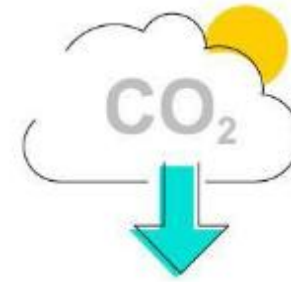
Launched internal diversity and inclusion council

2012

Internal and External Sustainability Advisory Councils formed and begin meeting

2014

First set of major goals "2020 Climate Commitments" announced



2015

Launched EcoWise product portfolio

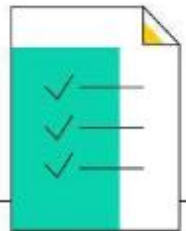
First in our industry to have climate commitments validated by the Science-Based Targets Initiative (SBTi)

2021

Data submitted for 2050 Net Zero target to SBTi

Received inaugural Terra Carta Seal for sustainability leadership

Presented by His Majesty King Charles III, in his former role as HRH the Prince of Wales



2020

SBTi validates achievement of first generation of climate commitments

SBTi validates second generation of climate commitments

2022

Net-zero targets validated by SBTi

2019

Announced "2030 Sustainability Commitments"

Invested in first wind power agreement

Received World Environment Center Gold Medal



2018

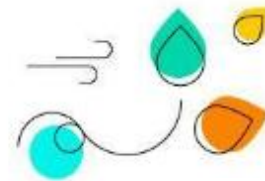
Achieved 2020 climate commitments 2 years ahead of schedule

Published first formal ESG report

Installed first on-site solar

2017

First in our industry to join Paradigm4Parity and CEO Action for Diversity and Inclusion



Widely Recognized for Sustainability, Citizenship, Diversity, Inclusion & Engagement

Highly Regarded ESG Performance



12 Consecutive Years
Performed in the 97th
percentile in the Capital
Goods industry



**2023 JUST 100:
Ranked 18th**
2nd consecutive year
JUST 100 Listing;
Sector Leader



A
Climate Change
disclosure identified as
"Industry Leader"



97th Percentile
72/100; Advanced Overall



62% higher
score than industry
average

Management Top 250
*Developed by the Drucker
Institute, published by
The Wall Street Journal*

Improved ranking YOY
Ranked #62, and Top 10
for Customer Satisfaction



Inaugural Recipient
Presented by His Majesty
for Sustainable Market
Transformation



*Awaiting 2022 update

***6th Percentile**
in the Building Products
industry. 13th percentile
globally. Identified as
"Industry Leader"

People and Citizenship



11 years
listed on most admired
companies list



Certified in 2022
For one year through
rigorous, data-based model
and employee survey



Score of 100
Helps companies measure
disability inclusion and equity



World's Best Employers
among companies worldwide



Q4 Organic Bookings Flat Y-O-Y; Organic Revenues Up 16%

Organic* Bookings	2020					2021					2022				
	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FY
Americas	+11%	-5%	+8%	+2%	+4%	+36%	+29%	+20%	+31%	+29%	+6%	+10%	+11%	flat	+7%
EMEA	-2%	-20%	+6%	+9%	-3%	+18%	+53%	+25%	+13%	+27%	flat	-12%	-10%	+2%	-5%
Asia Pacific	-17%	-2%	-5%	+2%	-6%	+14%	+12%	+11%	+18%	+14%	+14%	+16%	+3%	-6%	+7%
Total	+6%	-7%	+7%	+3%	+2%	+31%	+30%	+20%	+27%	+27%	+6%	+7%	+8%	flat	+5%

Organic* Revenue	2020					2021					2022				
	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FY	Q1	Q2	Q3	Q4	FY
Americas	-2%	-13%	+2%	+1%	-3%	+9%	+19%	+4%	+14%	+11%	+13%	+13%	+19%	+14%	+15%
EMEA	-3%	-15%	-6%	-6%	-8%	+12%	+28%	+8%	+5%	+13%	+6%	+11%	+18%	+23%	+15%
Asia Pacific	-34%	-5%	-2%	-6%	-11%	+34%	+2%	+1%	+4%	+7%	+14%	-12%	+28%	+19%	+12%
Total	-5%	-13%	+50bps	-1%	-5%	+11%	+18%	+4%	+11%	+11%	+12%	+11%	+19%	+16%	+15%

*Organic revenues and bookings exclude acquisitions and currency

Q4 Non-GAAP Measures Definitions

Adjusted operating income in 2022 is defined as GAAP operating income adjusted for restructuring costs, transformation costs, merger and acquisition related costs, non-cash adjustments for contingent consideration, a settlement charge for a compensation related payment to a retired executive, and an insurance settlement on a property claim in Q3 2022. Adjusted operating income in 2021 is defined as GAAP operating income adjusted for restructuring costs, transformation costs and merger and acquisition related costs. Please refer to the reconciliation of GAAP to non-GAAP measures on tables 2, 3 and 4 of the news release.

Adjusted operating margin is defined as the ratio of adjusted operating income divided by net revenues.

Adjusted earnings from continuing operations attributable to Trane Technologies plc (Adjusted net earnings) in 2022 is defined as GAAP earnings from continuing operations attributable to Trane Technologies plc adjusted for net of tax impacts of restructuring costs, transformation costs, merger and acquisition related costs, non-cash adjustments for contingent consideration, a settlement charge for a retired executive, a insurance settlement on a property claim in Q3 2022, and a U.S. discrete non-cash tax adjustment. Adjusted net earnings in 2021 is defined as GAAP earnings from continuing operations attributable to Trane Technologies plc adjusted for net of tax impacts of restructuring costs, transformation costs, merger and acquisition related costs and charges related to certain entities deconsolidated under Chapter 11. Please refer to the reconciliation of GAAP to non-GAAP measures on tables 2 and 3 of the news release.

Adjusted continuing EPS in 2022 is defined as GAAP continuing EPS adjusted for net of tax impacts of restructuring costs, transformation costs, merger and acquisition related costs, non-cash adjustments for contingent consideration, a settlement charge for a retired executive, an insurance settlement on a property claim in Q3 2022, and a U.S. discrete non-cash tax adjustment. Adjusted continuing EPS in 2021 is defined as GAAP continuing EPS adjusted for net of tax impacts of restructuring costs, transformation costs, merger and acquisition related costs and charges related to certain entities deconsolidated under Chapter 11. Please refer to the reconciliation of GAAP to non-GAAP measures on tables 2 and 3 of the news release.

Adjusted EBITDA in 2022 is defined as adjusted operating income adjusted for depreciation and amortization expense, other income / (expense), net, and a settlement charge for a retired executive. Adjusted EBITDA in 2021 is defined as adjusted operating income adjusted for depreciation and amortization expense, other income / (expense), net, and charges related to certain entities deconsolidated under Chapter 11. Please refer to the reconciliation of GAAP to non-GAAP measures on tables 4 and 5 of the news release.

Q4 Non-GAAP Measures Definitions

Adjusted EBITDA margin is defined as the ratio of adjusted EBITDA divided by net revenues.

Adjusted effective tax rate for 2022 is defined as the ratio of income tax expense adjusted for the net tax effect of adjustments for restructuring costs, transformation costs, merger and acquisition related costs, non-cash adjustments for contingent consideration, settlement charge for a retired executive, an insurance settlement in Q3 2022 on a property claim, and a U.S. discrete non-cash tax adjustment divided by adjusted net earnings. Adjusted effective tax rate for 2021 is defined as the ratio of income tax expense adjusted for the net tax effect of adjustments for restructuring costs, transformation costs, merger and acquisition related costs and charges related to certain entities deconsolidated under Chapter 11 divided by adjusted net earnings. This measure allows for a direct comparison of the effective tax rate between periods.

Free cash flow in 2022 is defined as net cash provided by (used in) continuing operating activities adjusted for capital expenditures, cash payments for restructuring costs, transformation costs, the continuing operations component of the qualified settlement fund (QSF) funding, a payout for a retired executive, and an insurance settlement in Q3 2022 on a property claim. Free cash flow in 2021 is defined as net cash provided by (used in) continuing operating activities adjusted for capital expenditures, cash payments for restructuring costs and Transformation costs. Please refer to the free cash flow reconciliation on table 10 of the news release.

Operating leverage is defined as the ratio of the change in adjusted operating income for the current period (e.g. Q4 2022) less the prior period (e.g. Q4 2021), divided by the change in net revenues for the current period less the prior period.

Organic revenue is defined as GAAP net revenues adjusted for the impact of currency and acquisitions. Organic bookings is defined as reported orders in the current period adjusted for the impact of currency and acquisitions.

Working capital measures a firm's operating liquidity position and its overall effectiveness in managing the enterprise's current accounts.

- Working capital is calculated by adding net accounts and notes receivables and inventories and subtracting total current liabilities that exclude short-term debt, dividend payables and income tax payables.
- Working capital as a percent of revenue is calculated by dividing the working capital balance (e.g. as of December 31) by the annualized revenue for the period (e.g. reported revenues for the three months ended December 31 multiplied by 4 to annualize for a full year).

We discuss non-GAAP measures for prior periods, which can be found in our year-end earnings releases that have been furnished Form 8-Ks previously filed with the SEC.