



Fellow Shareholders,

In February of this year, after 40 years with the company, Mark Jagiela retired and I succeeded him as CEO of Teradyne. Over the past 30+ years of my career and the past 17 years at Teradyne, I've seen semiconductors and electronics transform the global economy. More recently, I've seen low cost and easy to deploy industrial robots enable workers to shift from dull, dirty or dangerous tasks to higher value activities making factories more productive and helping to address the looming "labor gap" in global manufacturing. These two global megatrends, pervasive electronics and easy to deploy industrial robots, have decades of expected growth ahead. Teradyne's products and engineering investments are well aligned with these trends and will continue to drive attractive sales and profit growth in line with our long-term strategy.

Our strategy is to deliver value to customers, employees, and owners by profitably growing our test businesses while investing to drive high growth in our Robotics business. We execute this strategy with a flexible operating model that enables a long-term focus and is designed to tolerate wide demand swings. This helps insulate our R&D and customer support investments from the usual economic cycles.

Between 2019 and 2021, Teradyne sales grew over 60%, but in 2022 test demand softened as sales of smartphones, PCs and

other electronics slowed. Our Robotics business grew, but at a slower pace than we had planned. While we delivered the second highest company revenue in history, revenue was down 15% from 2021's record level. We maintained investments in our long-term strategy; we modestly grew R&D spending to keep our new product development pipeline fully charged, we continued to invest in strengthening our Robotics distribution network; and we increased our investments to add resiliency to our global supply chain. Even with these investments in a softer market, we delivered \$4.25 non-GAAP earnings per share¹, our 3rd highest in history. Although our highest priority use of capital continues to be accretive M&A, in 2022, excessively high valuations of acquisition opportunities kept us on the sidelines. Therefore, we increased our quarterly dividend 11% in January 2022 and we repurchased \$752 million in shares during the year.

At the segment level, our test business sales softened 17% from 2021's record level. In our Robotics segment, sales grew 7% from 2021 to \$403 million.

Within the test segment, Semiconductor Test delivered sales of \$2.1 billion, System Test \$469 million, and Wireless Test \$202 million. The decline in smartphone unit shipments, combined with a lull in chip complexity growth pending the transition to the next chip processing technology node contributed to a decline of industry test spending and was the strongest headwind for both our Semiconductor and Wireless test businesses. In System Test, sales were up marginally as double-digit sales growth from Defense & Aerospace and Production Board Test customers was offset by slowing hard disk drive test demand.

Since entering the robotics market in 2015 with the acquisition of Universal Robots, our robotics sales have grown at a 38% compounded rate. 2022's growth was well below that historical trend and below our plan for the future. Growth was impacted by three main factors. First, we saw challenging economic conditions for industrial activity, mainly in Europe which is our largest market. Second, exchange rates between the US dollar and the other currencies in which we transact most robotics business were unfavorable in 2022. Third, labor shortages in our distributor network slowed robot deployments.

Teradyne Robotics Delivers Long Term Revenue Growth



Non-GAAP Operating Results¹

	GAAP Revenue (\$M)	Operating Income (\$M)	Operating Margin	Net Income (\$M)	Earnings per Share	Diluted Share Count (M)	# of Employees
2022	3,155	868	28%	713	\$4.25	168	6,500
2021	3,703	1,232	33%	1,050	\$5.98	176	5,900
2020	3,121	947	30%	801	\$4.62	175	5,500

Balancing these headwinds were significant accomplishments including 50% growth in our OEM sales at Universal Robots, introduction of our high payload UR-20 robot, and nearly 20% growth in sales of autonomous mobile robots (AMRs) at Mobile Industrial Robots (MiR). Also in 2022, we joined our MiR and AutoGuide units into a single unit focused on delivering a broad range of AMRs under the MiR brand. Long-term, we remain bullish on our Robotics business. We model the market penetration for collaborative robots and AMRs at under 3%. We estimate that Universal Robots' share of the collaborative robot market is three times larger than our closest competitor, and we're investing in R&D and distribution to maintain and extend our market leading position. At MiR, our investments are focused on expanding the payload and performance of our robots to break out of the pack and establish the leadership position in the crowded AMR market.

Great products serving growing markets are essential to long-term success but we also recognize the strategic importance of providing an inclusive and supportive workplace for our employees, that we are a responsible member of the local and global communities in which we operate, and that we ensure that our suppliers meet these same high standards. In addition to strong operating results, our customers, the communities where we operate, and investors also expect continued improvement in our Environmental, Social, Governance (ESG) and Diversity, Equity, and Inclusion (DEI) efforts. We completed a Virtual Power Purchase Agreement (VPPA) to allow us to be carbon neutral in North America by 2025 and joined with other semiconductor industry leaders in the Semiconductor Climate Consortium, an industry working group focused on collaboratively addressing greenhouse gas emissions related to semiconductor production equipment. In 2022, 100 Teradyne leaders completed McKinsey Academy's "Unlocking the Potential of Women" training program which resulted in new initiatives for mentoring, family-friendly work programs, and diversity recruiting. We also awarded scholarships to our first group of 15 United Negro College Fund (UNCF) scholars, assisting Black/African American

college students in their third and fourth years of study to complete STEM degrees. Our support of collegiate programs to increase the number of diverse candidates in the STEM field continued as well. Please see our Corporate Social Responsibility Report on our website for all the details.

Looking ahead into 2023, because we have limited visibility into the depth or duration of the current downturn in the semiconductor industry, we are naturally cautious with our spending plans. While we do not yet know how the year will play out for Teradyne, we believe that the foundation of the markets we serve remains rock solid. Electronic content in the global economy will continue to grow and the number of manufacturing and logistics tasks that our robots can economically perform are growing daily. These growing end markets provide the fuel for our long-term growth. The financial and technical power of Teradyne and our experience solving complex test and automation problems will ensure we continue to meet the needs of our customers and will provide challenging and rewarding careers for our employees while delivering strong financial returns to our owners. I'm continually impressed by the innovative spirit and customer focus of our global teams in test and robotics and am honored and excited to lead this great team into the future.

Thank you for your support.



Greg S. Smith
Chief Executive Officer and President
Teradyne, Inc.
March 2023

¹ Non-GAAP financial measures. Please see the attached appendix for explanations of why we use these Non-GAAP measures and the reconciliation to the most comparable GAAP financial measures.

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Appendix A to Shareholder Letter – March 31, 2023

Reconciliation of GAAP Measures to Non-GAAP Measures

The non-GAAP performance measures discussed in this shareholder letter may not be comparable to similarly titled measures used by other companies. The presentation of non-GAAP measures is not meant to be considered in isolation, as a substitute for, or superior to, financial measures or information provided in accordance with GAAP. In addition to disclosing results that are determined in accordance with GAAP, Teradyne also discloses non-GAAP results of operations that exclude certain income items and charges. These results are provided as a complement to results provided in accordance with GAAP. Non-GAAP income from operations and non-GAAP net income exclude acquired intangible assets amortization, non-cash convertible debt interest, pension actuarial gains and losses, discrete income tax adjustments, fair value inventory step-up, and restructuring and other, and includes the related tax impact on non-GAAP adjustments. GAAP requires that these items be included in determining income from operations and net income. Non-GAAP income from operations, non-GAAP net income, non-GAAP income from operations as a percentage of revenue, non-GAAP net income as a percentage of revenue, and non-GAAP net income per share are non-GAAP performance measures presented to provide meaningful supplemental information regarding Teradyne's baseline performance before gains, losses or other charges that may not be indicative of Teradyne's current core business or future outlook. These non-GAAP performance measures are used to make operational decisions, to determine employee compensation, to forecast future operational results, and for comparison with Teradyne's business plan, historical operating results and the operating results of Teradyne's competitors. Non-GAAP gross margin excludes fair value inventory step-up. GAAP requires that this item be included in determining gross margin. Non-GAAP gross margin dollar amount and percentage are non-GAAP performance measures that management believes provide useful supplemental information for management and the investor. Management uses non-GAAP gross margin as a performance measure for Teradyne's current core business and future outlook and for comparison with Teradyne's business plan, historical gross margin results and the gross margin results of Teradyne's competitors. Non-GAAP diluted shares include the impact of Teradyne's call option on its shares. Management believes each of these non-GAAP performance measures provides useful supplemental information for investors, allowing greater transparency to the information used by management in its operational decision making and in the review of Teradyne's financial and operational performance, as well as facilitating meaningful comparisons of Teradyne's results in the current period compared with those in prior and future periods. A reconciliation of each available GAAP to non-GAAP financial measure discussed in this shareholder letter is contained in this Appendix A and on the Teradyne website at www.teradyne.com by clicking on "Investor Relations" and then selecting "Financials" and the "GAAP to Non-GAAP Reconciliation" link.

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	Twelve Months Ended			
	December 31, 2022	% of Net Revenues	December 31, 2021	% of Net Revenues
Net Revenues	\$ 3,155.0		\$ 3,702.9	
Gross profit GAAP and non-GAAP	\$ 1,867.2	59.2%	\$ 2,206.7	59.6%
Income from operations - GAAP	\$ 831.9	26.4%	\$ 1,200.7	32.4%
Restructuring and other (1)	17.2	0.5%	9.3	0.3%
Acquired intangible assets amortization	19.3	0.6%	21.5	0.6%
Income from operations - non-GAAP	\$ 868.4	27.5%	\$ 1,231.5	33.3%

	Net Income per Common Share			
	December 31, 2022	% of Net Revenues	December 31, 2021	% of Net Revenues
Net income - GAAP	\$ 715.5	22.7%	\$ 1,014.6	27.4%
Restructuring and other (1)	17.2	0.5%	9.3	0.3%
Acquired intangible assets amortization	19.3	0.6%	21.5	0.6%
Loss on convertible debt conversions (2)	—	—	28.8	0.8%
Interest and other (2)	—	—	10.3	0.3%
Pension mark-to-market adjustment (2)	(25.6)	-0.8%	(2.2)	-0.1%
Exclude discrete tax adjustments	(12.1)	-0.4%	(28.6)	-0.8%
Non-GAAP tax adjustments	(1.4)	0.0%	(3.4)	-0.1%
Convertible share adjustment (3)	—	—	—	—
Net income - non-GAAP	\$ 712.9	22.6%	\$ 1,050.3	28.4%
GAAP and non-GAAP weighted average common shares - basic	158.4		165.0	
GAAP weighted average common shares - diluted	169.7		183.6	
Exclude dilutive shares from convertible note	(1.8)		(7.4)	
Non-GAAP weighted average common shares - diluted	167.9		176.2	

(1) Restructuring and other consists of:

	Twelve Months Ended	
	December 31, 2022	December 31, 2021
Litigation settlement	\$ 14.7	\$ 12.0
Employee severance	2.9	1.5
Gain on sale of asset	(3.4)	—
Contingent consideration fair value adjustment	—	(7.2)
Other	3.0	3.0
	\$ 17.2	\$ 9.3

- (2) For the twelve months ended December 31, 2021, adjustment to exclude loss on convertible debt conversions. For the twelve months ended December 31, 2021, Interest and other included non-cash convertible debt interest expense. For the twelve months ended December 31, 2022 and December 31, 2021, adjustment to exclude actuarial gain recognized under GAAP in accordance with Teradyne's mark-to-market pension accounting.
- (3) For the twelve months ended December 31, 2022 and December 31, 2021, the non-GAAP diluted EPS calculation adds back \$1.0 million and \$3.7 million, respectively, of convertible debt interest expense to non-GAAP net income. For the twelve months ended December 31, 2022 and December 31, 2021, non-GAAP weighted average diluted common shares include 8.8 million and 10.0 million shares, respectively, related to the convertible debt hedge transaction.
- (4) Currency exchange rates are used to convert the operating results for countries where the functional currency is not the U.S. dollar into U.S. dollars. We calculate the effect of changes in currency exchange rates as the difference between period activity translated using the period's currency exchange rates and the rates as of December 31, 2021.

	Twelve Months Ended			
	December 31, 2020	% of Net Revenues	Net Income per Common Share	
Net Revenues	\$ 3,121.5			
Gross profit GAAP	\$ 1,785.7	57.2%		
Inventory step-up	0.4	0.0%		
Gross profit non-GAAP	\$ 1,786.1	57.2%		
Income from operations - GAAP	\$ 928.4	29.7%		
Acquired intangible assets amortization	30.8	1.0%		
Restructuring and other (1)	(13.2)	-0.4%		
Inventory step-up	0.4	0.0%		
Equity modification charge	0.8	0.0%		
Income from operations - non-GAAP	\$ 947.2	30.3%		

	Net Income per Common Share			
	December 31, 2020	% of Net Revenues	Basic	Diluted
Net income - GAAP	\$ 784.1	25.1%	\$ 4.72	\$ 4.28
Acquired intangible assets amortization	30.8	1.0%	0.19	0.17
Interest and other (2)	14.4	0.5%	0.09	0.08
Pension mark-to-market adjustments (2)	10.3	0.3%	0.06	0.06
Restructuring and other (1)	(13.2)	-0.4%	(0.08)	(0.07)
Inventory step-up	0.4	0.0%	0.00	0.00
Equity modification charge	0.8	0.0%	0.00	0.00
Exclude discrete tax adjustments (3)	(15.2)	-0.5%	(0.09)	(0.08)
Non-GAAP tax adjustments	(11.9)	-0.4%	(0.07)	(0.07)
Convertible share adjustment (4)	—	—	—	0.25
Net income - non-GAAP	\$ 800.5	25.6%	\$ 4.82	\$ 4.62
GAAP and non-GAAP weighted average common shares - basic	166.1			
GAAP weighted average common shares - diluted	183.0			
Exclude dilutive shares from convertible note	(8.5)			
Non-GAAP weighted average common shares - diluted	174.5			