

Fellow Shareholders,

Our strategy to grow Teradyne and increase our company's value to customers, employees, and shareholders is clear – profitably grow market share in our core test businesses while investing to accelerate the hyper-growth at Universal Robots in industrial automation. Superior products and a laser-like focus on profitable market segments are how we make that strategy a reality. The resulting profits enable the necessary investments in R&D, sales, support, and M&A to keep the growth wheel turning, as well as providing for direct shareholder returns through dividends and share repurchases.

Execution of that strategy was on full display in 2017. Our sales of \$2.1 billion were up 22% from 2016 and our non-GAAP earnings increased 55% to \$2.34 per share. 2017 was our second consecutive year of revenue and earnings growth driven by strong performance in Semiconductor Test and Universal Robots. Our operating model is working well, generating \$521 million in free cash flow with a non-GAAP operating profit rate of 26%. We entered 2017 with \$1.6 billion in cash and through the year repurchased \$200 million in Teradyne shares, paid \$55 million in quarterly dividends, and ended the year with \$1.9 billion in cash. We closed out 2017 with a stock price of \$41.87, up 65% for the year and 112% over the last 3 years.



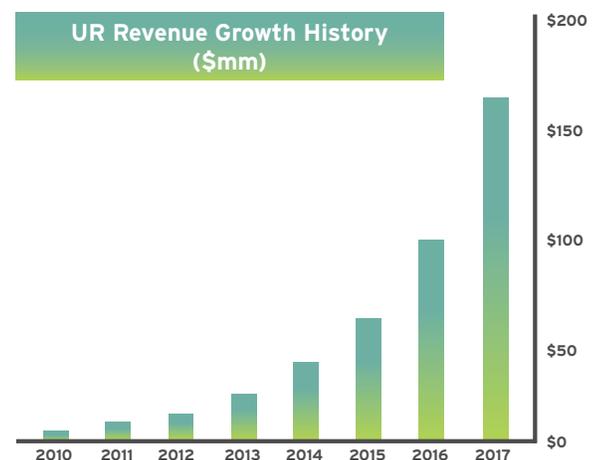
Mark E. Jagiela
CEO & President, Teradyne, Inc.

Our largest business, Semiconductor Test, performed extremely well in 2017. The business grew sales 22%, delivered a 30% non-GAAP operating profit rate, and increased market share 2 points to a record of 50%. The System on a Chip (SOC) portion of the market was strong and our sales grew 21% on broad based test demand for smartphones, automotive electronics, and industrial devices. The combination of careful targeting of these growing market segments, combined with industry leading products like the UltraFLEX, allow us to gain an average of 1 to 2 points of share per year. In fact, since 2007, we've more than doubled our Semiconductor ATE share from 24% to 50%.

In the Memory Test portion of the market, sales grew 27% to \$187 million on continued strong demand for NAND Flash test systems. Our Magnum product has the high-speed performance and test economics required to test the new generations of NAND devices that enable many of the hottest features in smartphones including slow motion video, high resolution still photography, and mobile gaming. In 2018, we'll extend the Magnum's reach into the wafer test segment of the memory market, more than doubling our available market size.

The Semiconductor Test market has been on a roll the past few years as the demand for electronic content in our daily lives continues to increase. Reliable semiconductors with increasing capabilities enrich lifestyles all over the planet. Test plays a major role in enabling this reality. As a business, Semiconductor Test has become more attractive as steady unit growth, coupled with test time increases driven by device complexity advancements, accelerates demand. As in the past, we still expect to have volatility in year over year Semiconductor Test market sizes, but the long-term trend line is positive.

When we acquired Universal Robots in mid-2015, we described our strategy to add industrial automation as a new axis of growth to Teradyne's core test businesses. That strategy is working well. Universal Robots' growth accelerated last year to 72%, up from 62% and 58% in 2016 and 2015, respectively. We're far and away the dominant player in the exploding market for low cost, easy-to-use, and safe collaborative robots. These features, combined with our expanding "Universal Robots Plus" ecosystem of development partners that create task specific peripherals, take UR cobots to applications never imagined. Beyond familiar tasks such as polishing, painting, palletizing, and loading and unloading



	Net Sales (\$mm)	Operating Income (\$mm)	Operating Margin	Net Income (\$mm)	Earnings Per Share	Free Cash Flow ¹ (\$mm)	Number of Employees
2017	2,137	564	26%	469	\$2.34	521	4,500
2016	1,753	350	20%	309	\$1.51	370	4,300
2015	1,640	336	21%	271	\$1.27	333	4,100

Non-GAAP Operating Results

of industrial machines, the range of UR cobot tasks continued to expand in 2017 to include some whimsical tasks such as bartending, massage, omelet making, or even advertising in store windows! The ease of training and wide range of peripherals, coupled with our global distributor base, make it possible for customers to apply a UR cobot to almost any tedious task.

We're aggressively investing to drive UR's explosive growth. In 2017, we increased our operating expense investments by 46%, and we'll increase them further in 2018. These investments are focused on expanding awareness of the economic power of UR cobots, expanding our product lead in ease of use, growing our ecosystem of third-party peripheral makers, and building out our global distribution network.

At LitePoint, we've been investing our R&D dollars into positioning ourselves for the new wave of WiFi and cellular standards expected to begin deployment later this decade. The results of those investments began to bear fruit in 2017 with new products for the 802.11ax WiFi standard and the release of the industry's first single box test solution for 5G cellular. While volume buying is still a year or more away for these new standards, we did see initial purchases of our 5G cellular tester and more sizable purchases of our new WiFi test solutions in 2017 as customers prepare production lines that can test both current and future standards. Financially, LitePoint had a very good year as sales grew 16% to \$112 million and our non-GAAP operating profit rate increased to 18%.

In System Test, our Defense and Aerospace and Production Board Test businesses combined grew 4% in 2017, delivered above model non-GAAP operating profits and improved their competitive product positions. In the Storage Test segment of System Test, however, investments early in the year needed to bring our new System Level Test product to market were greater than expected, which pulled the overall group's non-GAAP operating profit rate down to 6% for the year. Those new product investments are behind us and we expect our System Test Group to deliver model profits or better in 2018.

The U.S. tax law changes enacted late in 2017, combined with our solid financial foundation, have increased our capital allocation options. As a result, in January of 2018, our Board of Directors authorized a new \$1.5 billion share repurchase plan and we expect to repurchase at least \$750 million in shares in 2018. Additionally, we increased our quarterly dividend by 29% to \$0.09 per share. Going forward, we expect our capital allocation strategy will continue to balance these direct capital returns with selective M&A activities to drive further shareholder value.

Teradyne had a great 2017 from financial performance, market share, competitive position, and share price perspectives. That success is due to the hard work and innovative creativity of our nearly 4,500 employees globally. I am grateful for their dedication and relentless drive to exceed the expectations of our customers around the world, enabling our continued success and making Teradyne an exciting place to work and a rewarding place to invest.

Thank you for your confidence in Teradyne,



Mark E. Jagiela
Chief Executive Officer and President, Teradyne, Inc.
March 2018

TERADYNE

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¹A non-GAAP measure. Teradyne calculates free cash flow as cash flow from operations, less purchases of property, plant and equipment.