

A collage of images including a person in a surgical cap and mask, a microchip, and communication towers, set against a geometric background of blue, white, and green shapes.

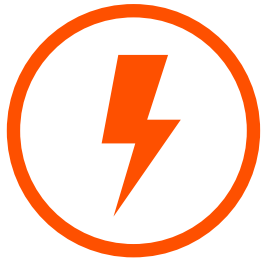
A Best-in-Class Industrial Growth Enterprise

May / June 2022

SAFE HARBOR

The company's guidance with respect to anticipated financial results, potential future growth and profitability, guidance on possible future results, future business mix, expectations regarding future market trends, future performance within specific markets and other statements herein or made on the above-announced conference call that are not historical information are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. These risks are described in Advanced Energy's Form 10-K, Form 10-Q and other reports and statements filed with the Securities and Exchange Commission (SEC), which can be obtained from the SEC's website or from our Investors page at ir.advancedenergy.com. Forward-looking statements are made and based on information available to us as of May 4, 2022. Aspirational goals and targets should not be interpreted in any respect as guidance. We assume no obligation to update the information in this presentation.

PRECISION POWER LEADER FOR THE DIGITAL ECONOMY



PURE PLAY POWER LEADER

Strategic focus on precision power ensures sustainable advantage and scale



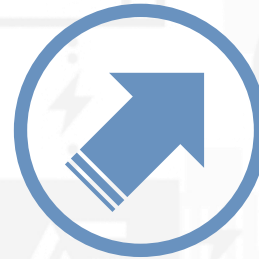
OUTPERFORMING MARKETS

Track record of broadening market reach, growing share and adding content



PROPRIETARY SOLUTIONS

Lead with differentiated, highly-engineered, high value products and technologies

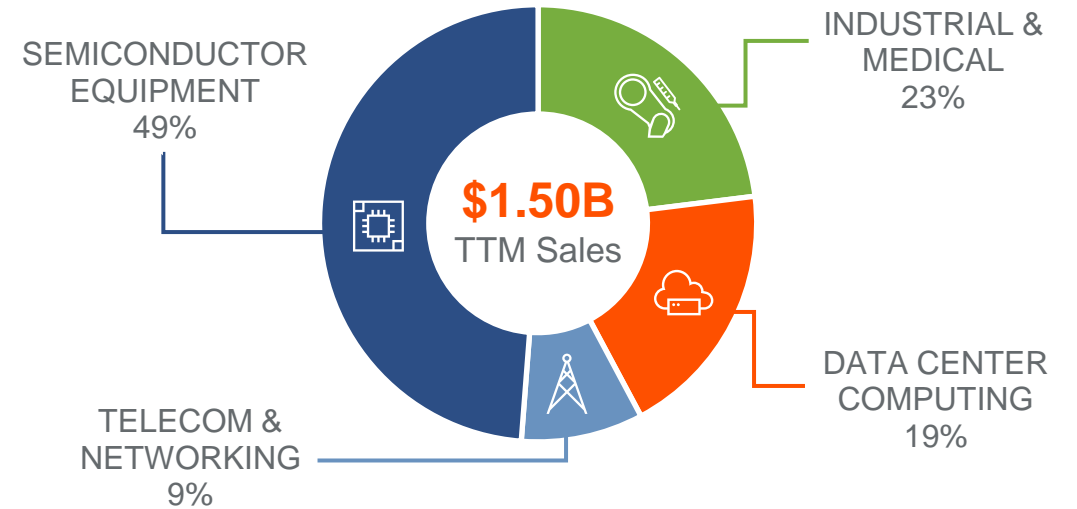


ACCELERATING EARNINGS

Capture long life-cycle revenues and optimize margins to grow EPS >2X faster than revenue

ADVANCED ENERGY AT A GLANCE

Headquartered in Denver Colorado, **Advanced Energy (NASDAQ: AEIS)** is a global leader in design and manufacture of highly engineered **precision power** conversion, measurement and control solutions for **mission-critical applications and processes.**



BY THE NUMBERS


1981
Founded


11,000
Global Employees

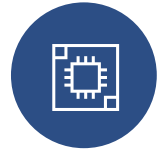

60+
Locations
Worldwide


\$1.50B
TTM Revenue


700+
Patents Issued
Globally

WE ARE THE PURE PLAY POWER LEADER

AE provides precision power conversion and control solutions for a wide range of high value and long life-cycle applications



SEMICONDUCTOR EQUIPMENT



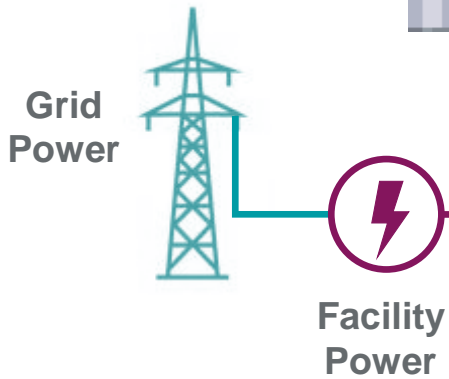
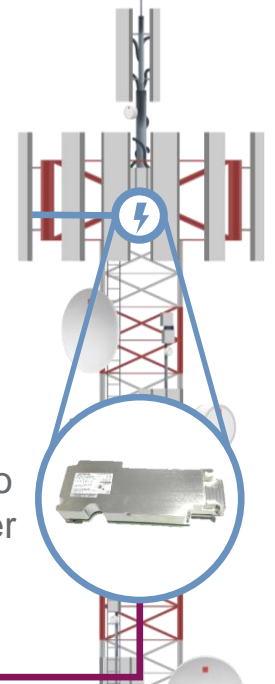
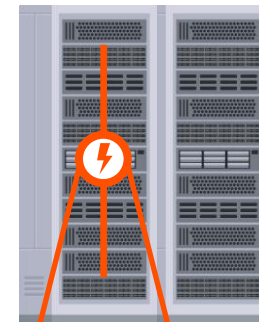
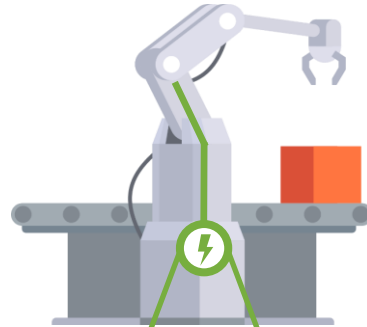
INDUSTRIAL & MEDICAL



DATA CENTER COMPUTING



TELECOM & NETWORKING



Process Power

Custom Power

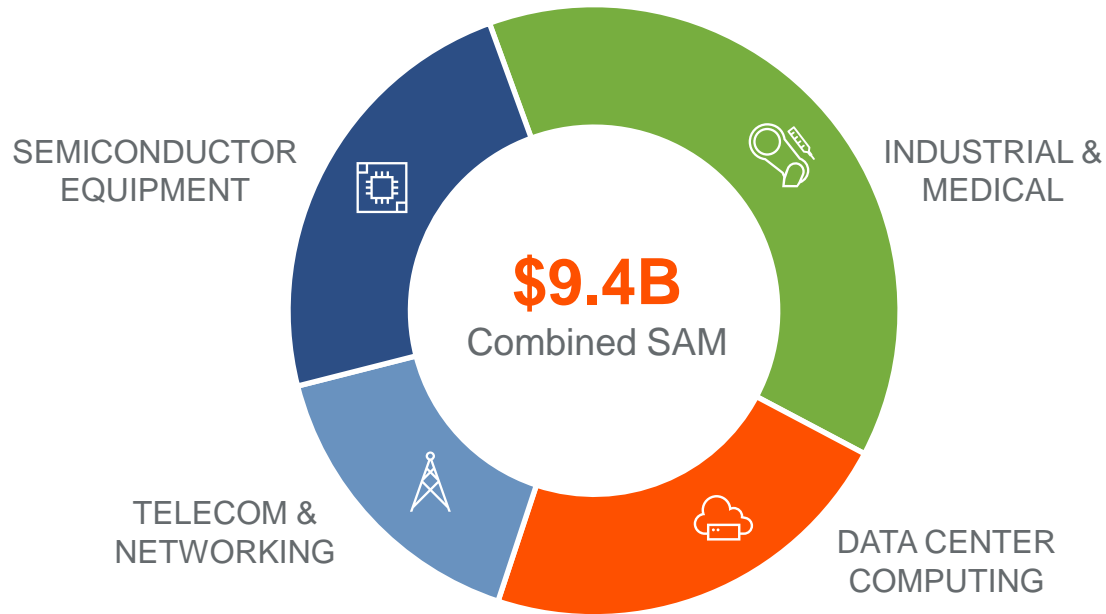
Server Power

Radio Power

>70% of Revenue Comes from Proprietary Products

OUR LEADERSHIP ENABLES SOLID FINANCIAL PERFORMANCE

Large & Diversified Growing Market



#1 or #2 in All Four Markets

2021 Reported Results



\$1.46 billion
RECORD REVENUE



\$211 million
NON-GAAP OP PROFIT⁽¹⁾
Operating margin 15%

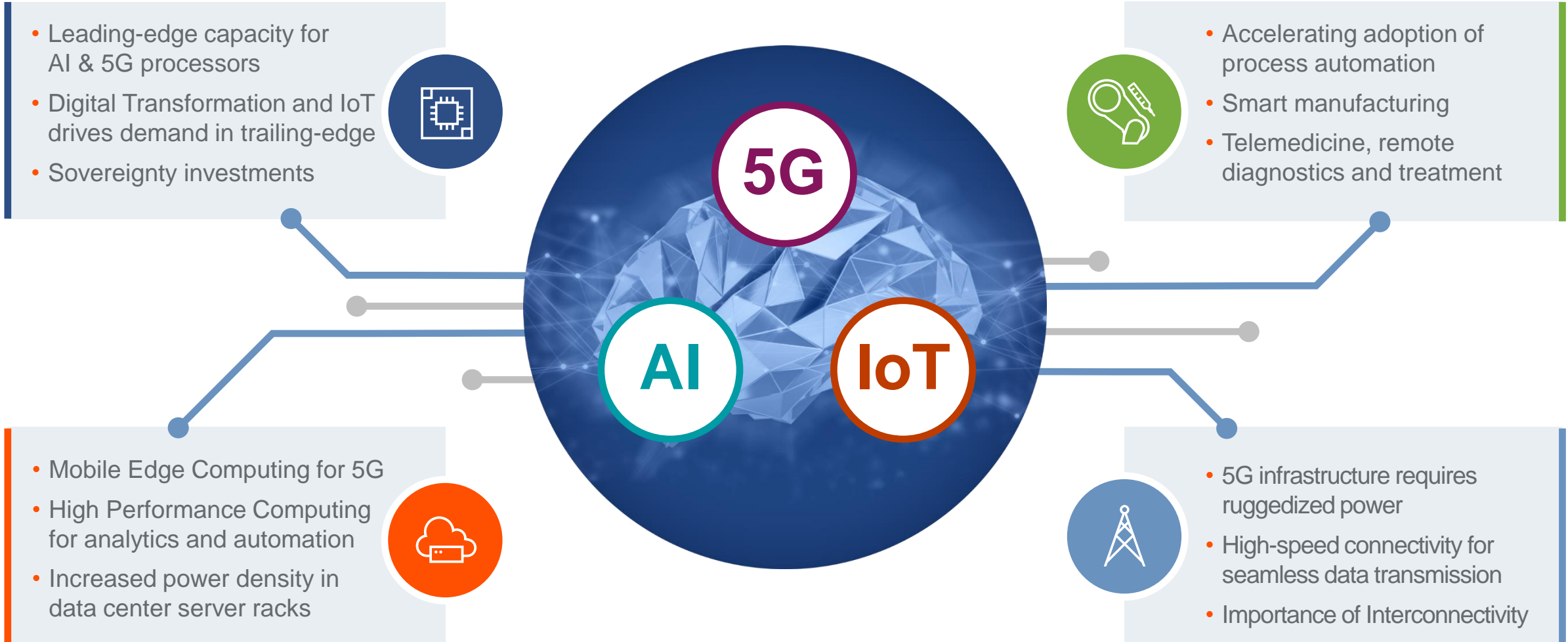


\$4.78
NON-GAAP EPS⁽¹⁾

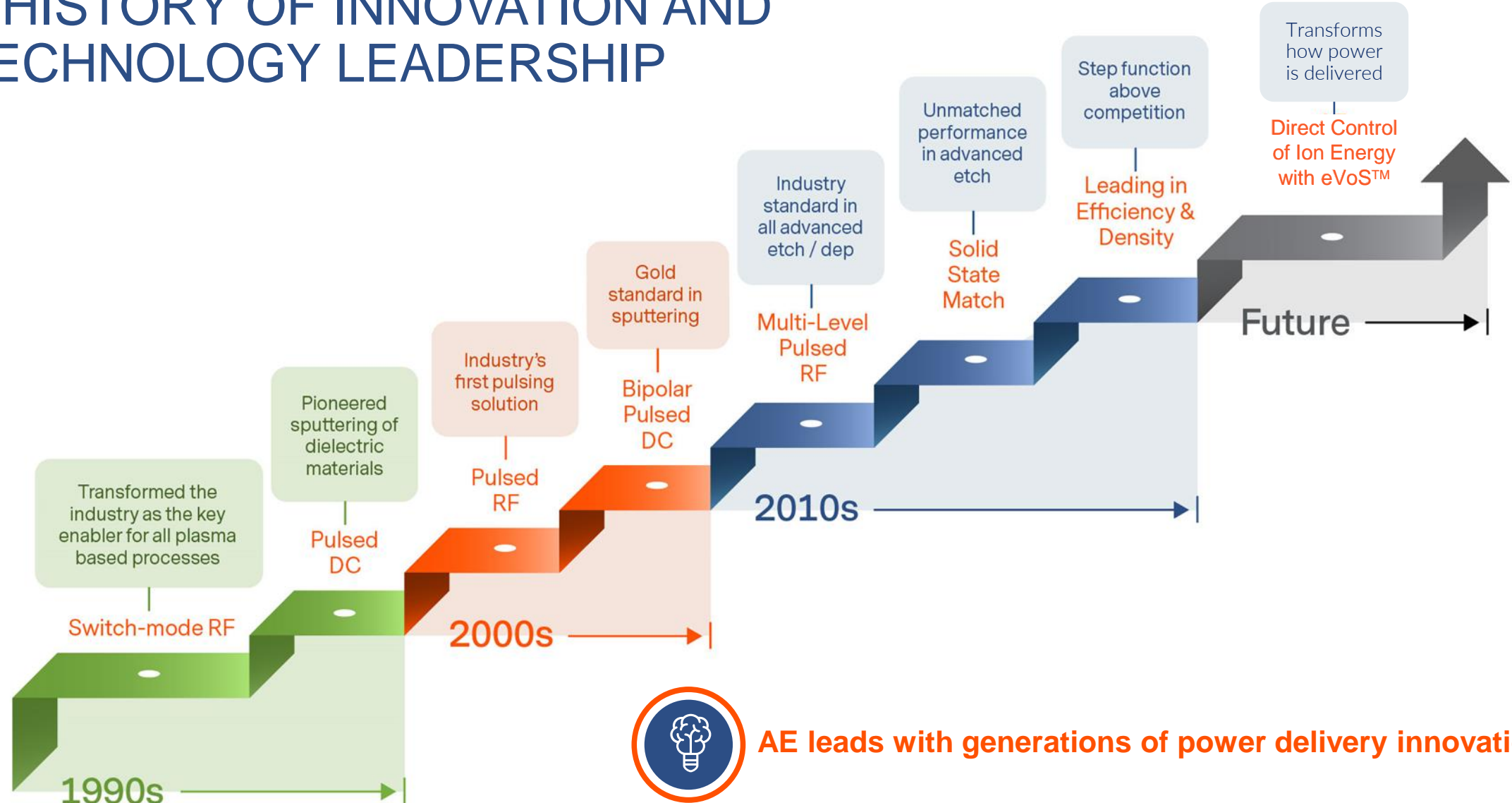


\$141 million
OPERATING CASH FLOW⁽²⁾
10% of Sales

DIGITAL ECONOMY DRIVES GROWTH ACROSS OUR 4 VERTICALS



A HISTORY OF INNOVATION AND TECHNOLOGY LEADERSHIP



AE leads with generations of power delivery innovations

FOCUS ON PROPRIETARY DESIGNS TO ACCELERATE GROWTH

AE TARGETED GROWTH STRATEGIES



GROW SHARE

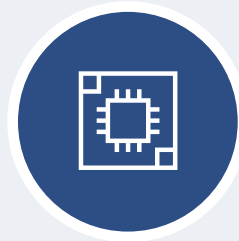
Across Mission-Critical Precision Power Verticals



Invest in **INNOVATION** and Technology Leadership



Leverage Strong Financials and Increased Scale to Capitalize on **NEW OPPORTUNITIES**



Semiconductor:
Extending Our Leadership



Industrial & Medical:
Expanding Our Portfolio of Proprietary Solutions



Data Center Computing:
From Fast Follower to Technology Leader



Telecom & Networking:
Targeting 5G Infrastructure

SEMICONDUCTOR: EXTENDING OUR LEADERSHIP

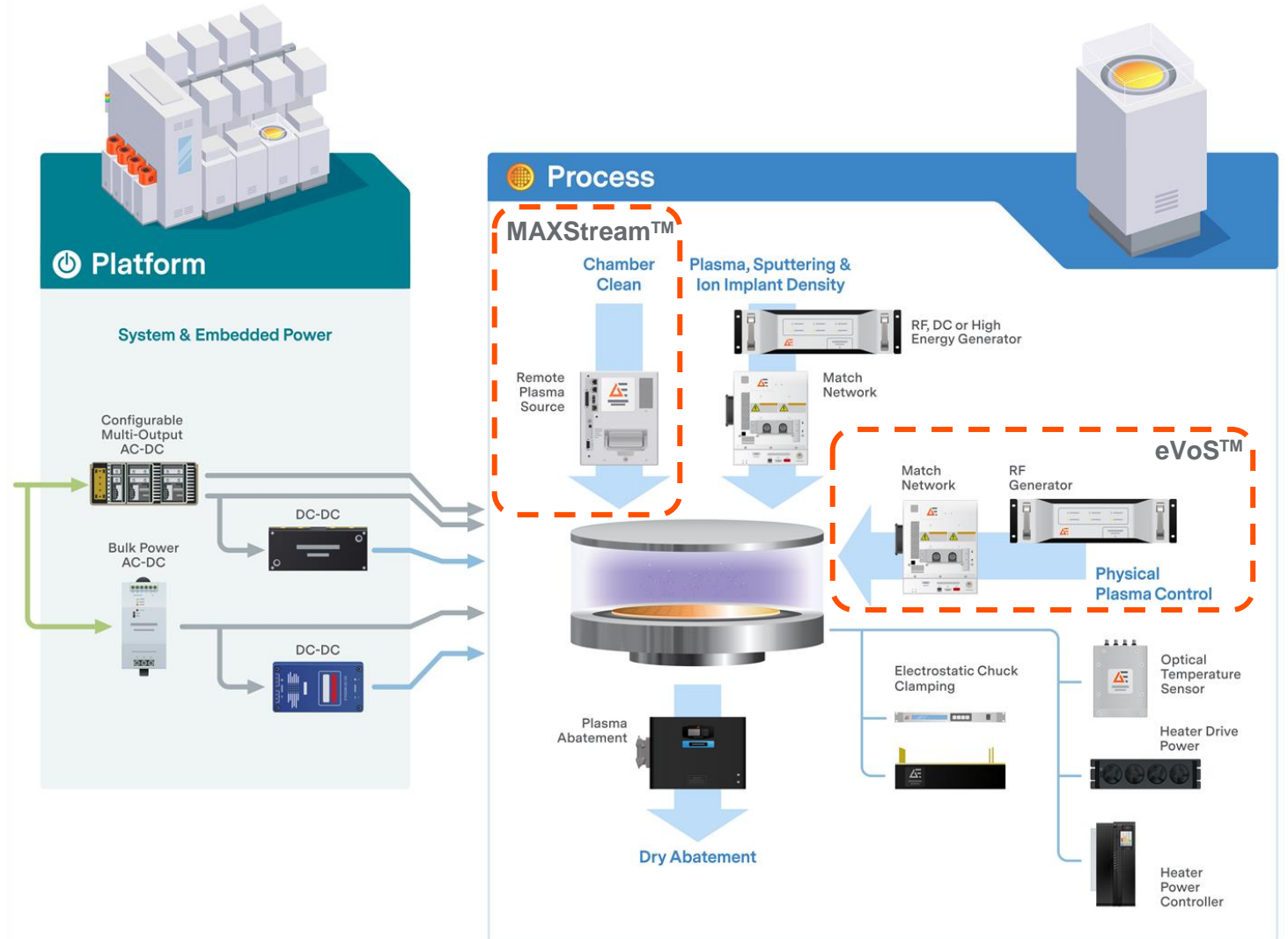
MARKET LEADER WITH PROVEN TRACK RECORD

No.1 Market share every year for over 10 years in Process Power and RF Power⁽¹⁾

16% 10-year Semi Product Revenue CAGR⁽²⁾

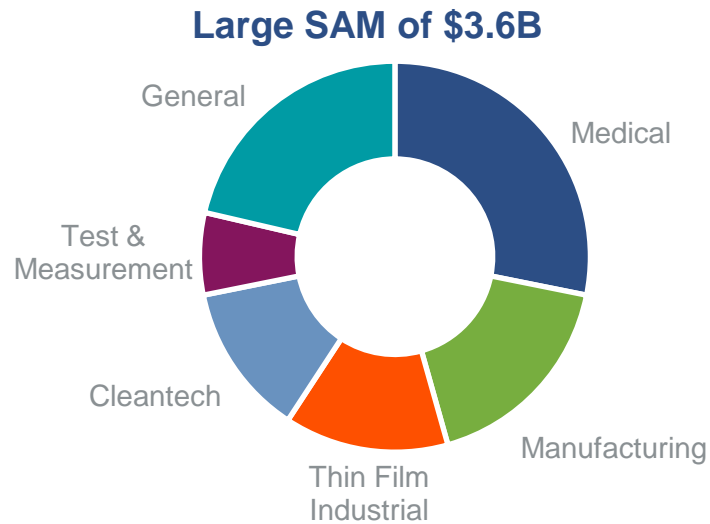
TARGET TO CONTINUE TO OUTGROW OUR MARKET

>1.2X AE targeted Semi revenue CAGR over WFE CAGR



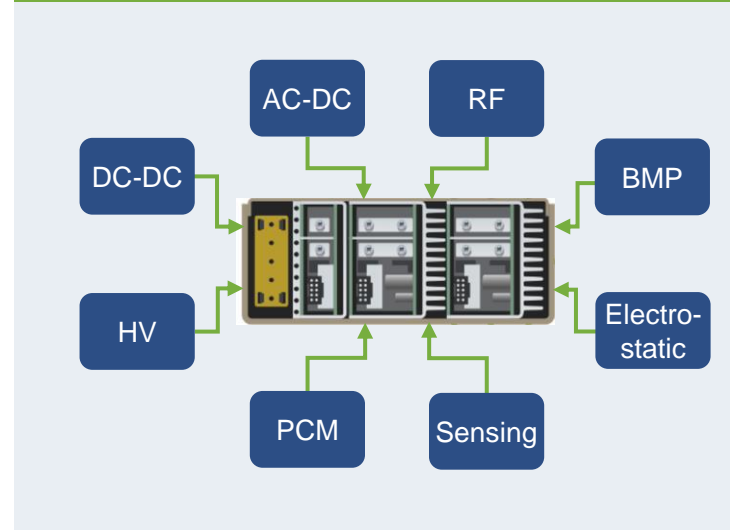
INDUSTRIAL & MEDICAL: EXPANDING OUR PORTFOLIO OF PROPRIETARY SOLUTIONS

LARGE MARKET WITH WIDE RANGE OF NICHE OPPORTUNITIES



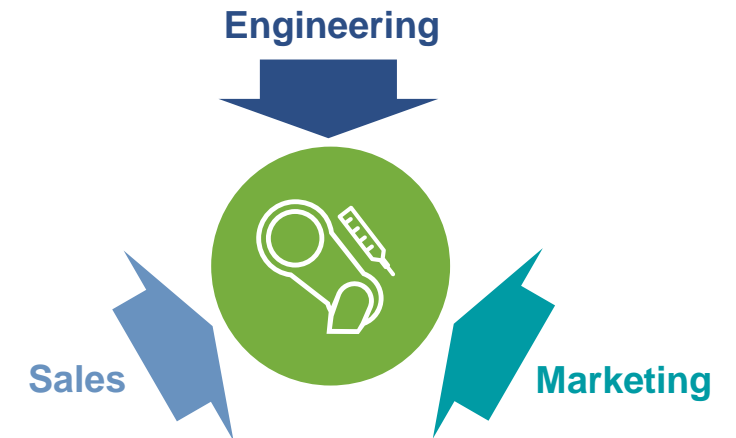
- Large SAM consists of many small and medium **high-value opportunities**
- Target long-life cycle and proprietary applications to capture **sole-source positions**

LEVERAGE BROAD PORTFOLIO OF STANDARD PRODUCTS TO DELIVER CUSTOM SOLUTIONS



- Most **comprehensive portfolio** of standard power products
- Develop **modified standard or full custom solutions** to solve customers' challenging power delivery problems

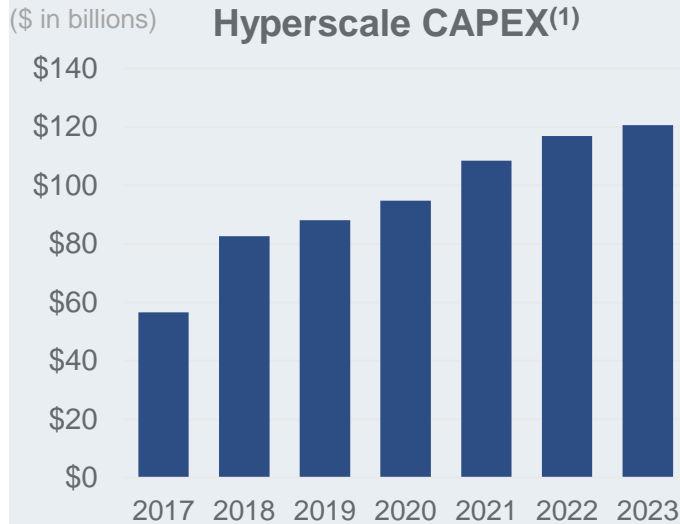
ACCELERATING INVESTMENTS TO DRIVE GROWTH



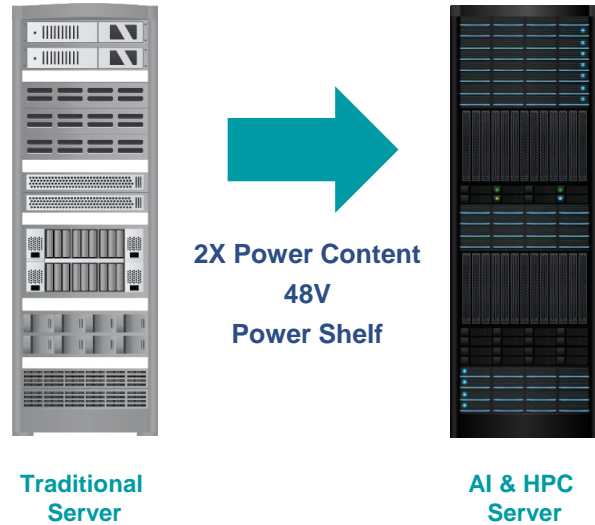
- **Allocate more** engineering, sales and marketing resources to I&M applications
- Grow **design win funnel**, accelerate cross selling and drive profitable revenue growth

DATA CENTER COMPUTING: FROM FAST FOLLOWER TO TECHNOLOGY LEADER

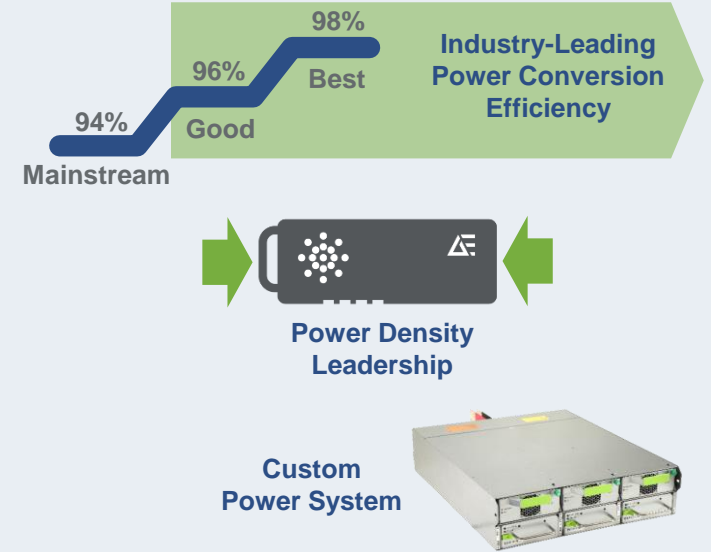
GROWING INVESTMENTS



MORE HIGH VALUE CONTENT



AE TECHNOLOGY LEADERSHIP

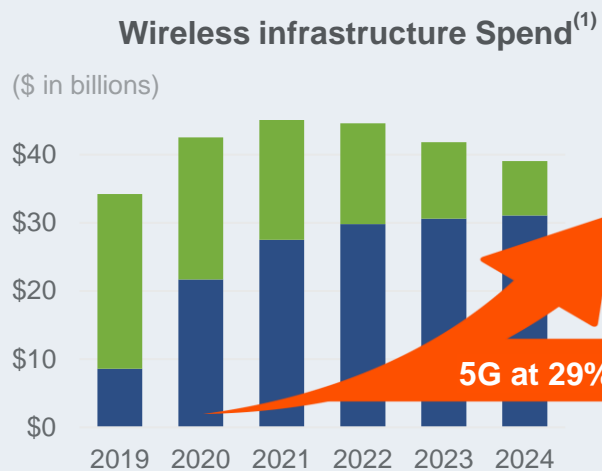


OUR WINNING STRATEGIES

- **Technologies** to address the most difficult power delivery problems
- Win **high value applications** at Tier-I and Tier-II hyperscale customers
- Capture additional opportunities with **48V transition**
- Deliver **best-in-class** quality and performance

TELECOM & NETWORKING: TARGETING 5G INFRASTRUCTURE

5G INFRASTRUCTURE MARKET GROWTH TREND



- Growth returning to wireless infrastructure with 5G launch
- Increased capacity demand driven by expanding use cases

GROWTH STRATEGY

- Win proprietary designs in 5G radio power for both macro and small cells
- Target high value opportunities in Data Center Networking

WHY WE WIN

- Industry-leading high density, rugged power supplies for outdoor radio
- Deep application knowledge necessary in 5G radio design
- 20+ years of customer intimacy with leading OEMs

Powering many of the largest wireless networks across the world



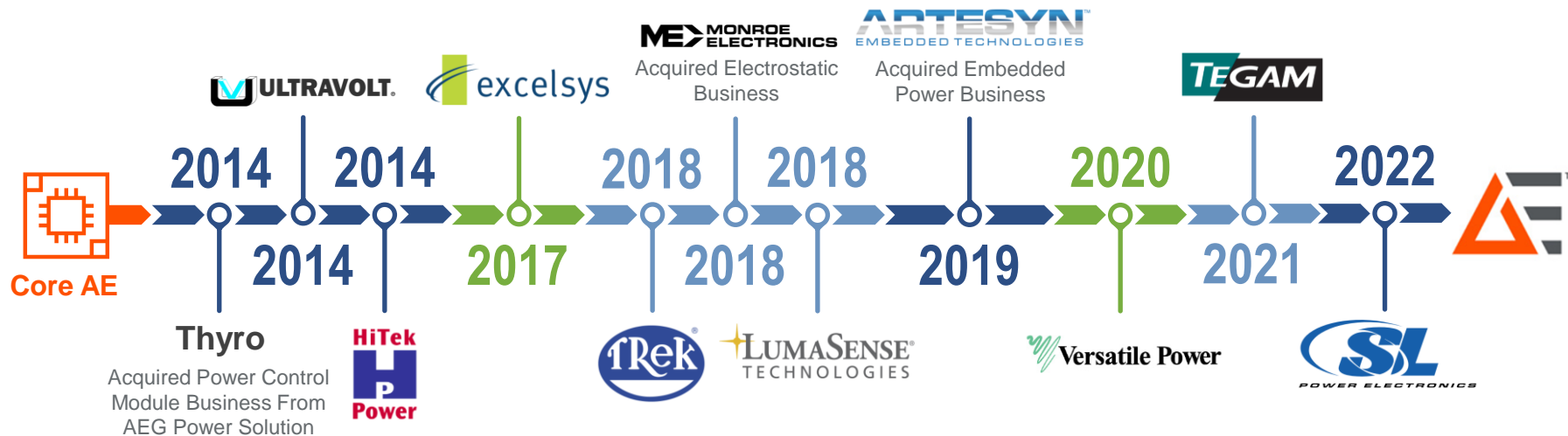
**High reliability
ruggedized power
supply for the harshest
environments**



INORGANIC GROWTH: GROWING SCOPE AND LEVERAGING SCALE

Track Record

Deployed >\$700M
Across 11 Acquisitions
All Accretive



Well-Defined Acquisition Criteria

- Precision Power and Controls
- Expand SAM, portfolio & technology
- Synergistic with current organization

Building a Solid Funnel

- Large and fragmented power market
- Plenty of differentiated high-value targets
- Extend our leadership

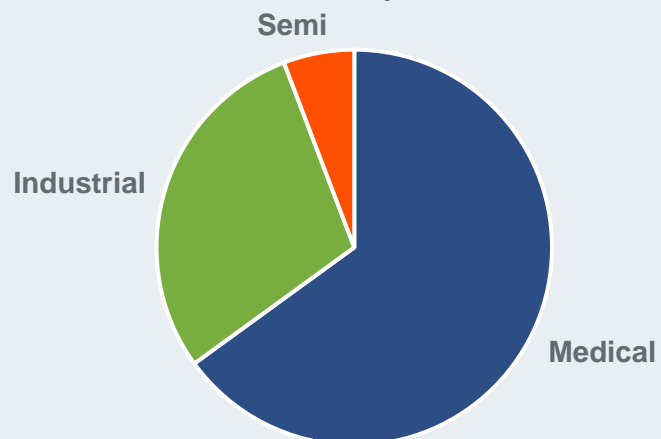
Discipline and Value Creation

- Analytical and deliberate
- Accretive within first year
- Target ROIC > 10%

SL POWER ACQUISTION BRINGS MANY STRATEGIC BENEFITS

FOCUSED ON MEDICAL

Revenue Mix by Market⁽¹⁾



STRATEGIC BENEFITS

- Expands AE’s addressable market in industrial and medical by > \$400 million
- Complements AE’s medical portfolio with low operating power, low emission (EMI/EMC), medical-grade power supplies
- Broadens AE’s reach in advanced industrial applications
- Delivers significant potential revenue and cost synergies by cross selling and integration into AE’s operations
- Enhances AE’s core competency in power conversion technologies
- Expected to be Non-GAAP earnings⁽²⁾ accretive in Year 1 and non-GAAP margin⁽²⁾ accretive after full integration

HIGHLIGHTS



TRANSITION
VALUE⁽³⁾
\$144.5M



2021
REVENUE
\$66M



YEARS IN
BUSINESS
60



NUMBER OF
SITES
5



EXPECTED COST
SYNERGIES
\$4M

(1) Mix based on 3-year average from fiscal 2019 to 2021

(2) Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation

(3) Total purchase price of \$144.5 million is subjected to customary adjustments

Q1 2022 RESULTS SURPASSED HIGH END OF GUIDANCE



REVENUE
\$397 million
Up 0.1% Q/Q



BACKLOG
\$1,012 million
Up 9% Q/Q



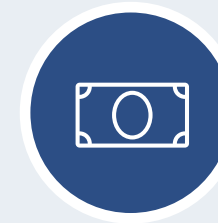
NON-GAAP GROSS MARGIN*
36.6%
Up 110 bps Q/Q



NON-GAAP OP MARGIN*
14.5%
Up 70 bps Q/Q



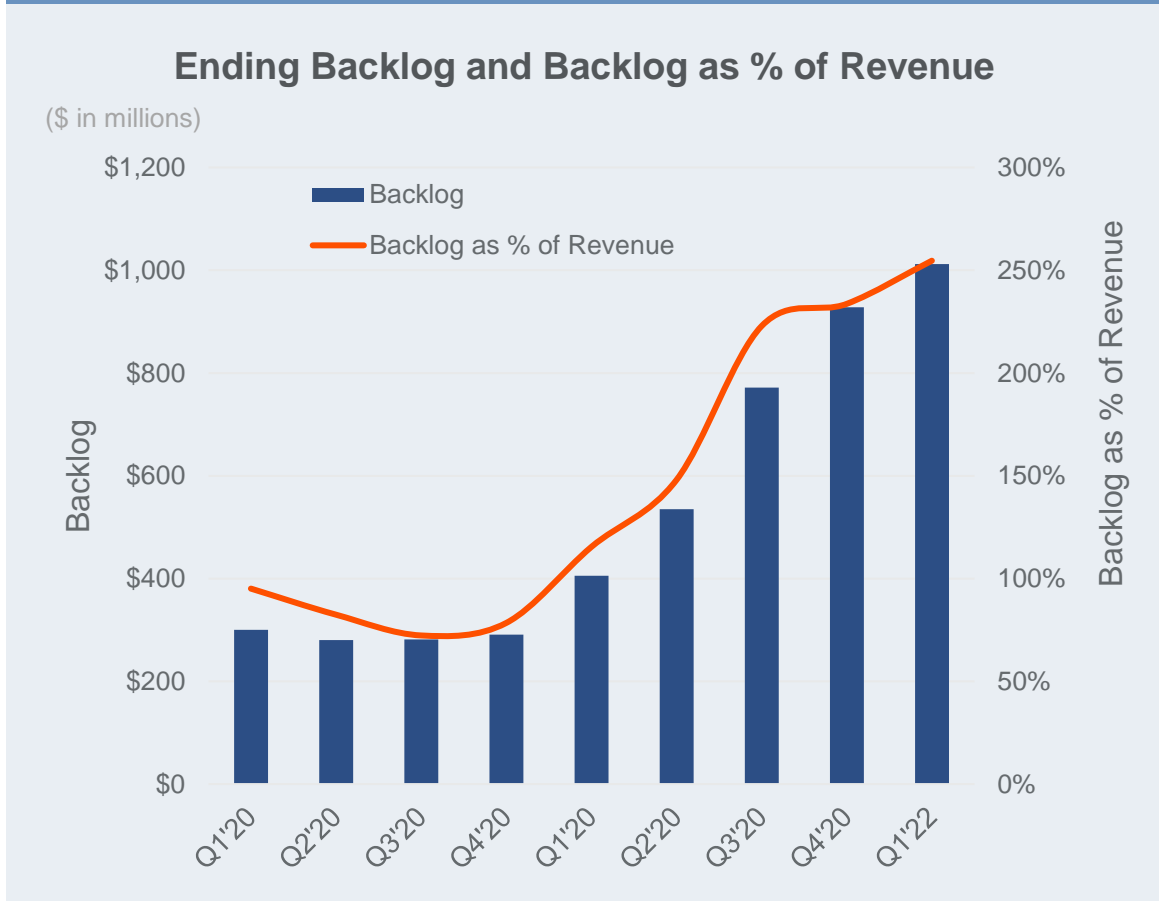
NON-GAAP EPS*
\$1.24
Down 9% Q/Q on tax



CASH & INVESTMENTS
\$524 million
Net Cash of \$136 million

STRONG DEMAND AND RECORD BACKLOG

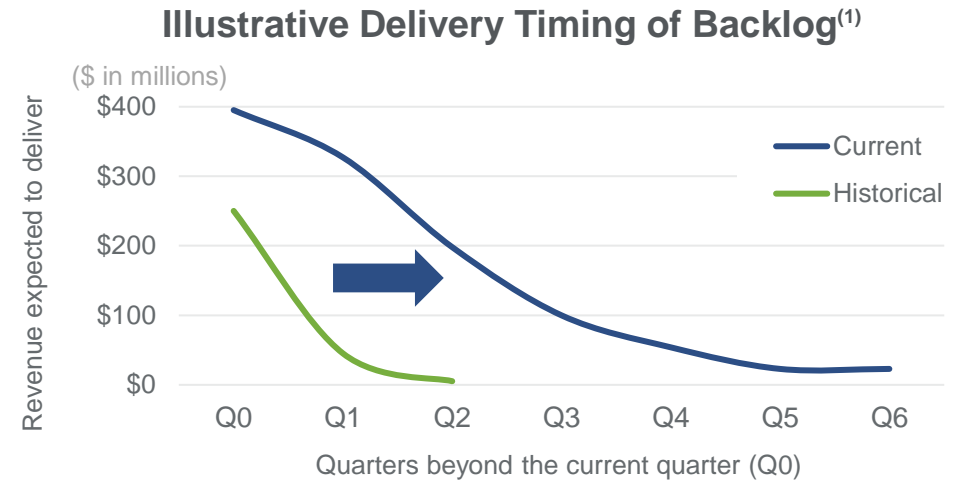
STRONG DEMAND HIGHLIGHTED BY RECORD BACKLOG



STRENGTH OF THE BACKLOG

- Vast majority of the backlog are in proprietary designs
- ~60% is immediately shippable as soon as we can build
- Channel inventories of AE products well below normalized levels

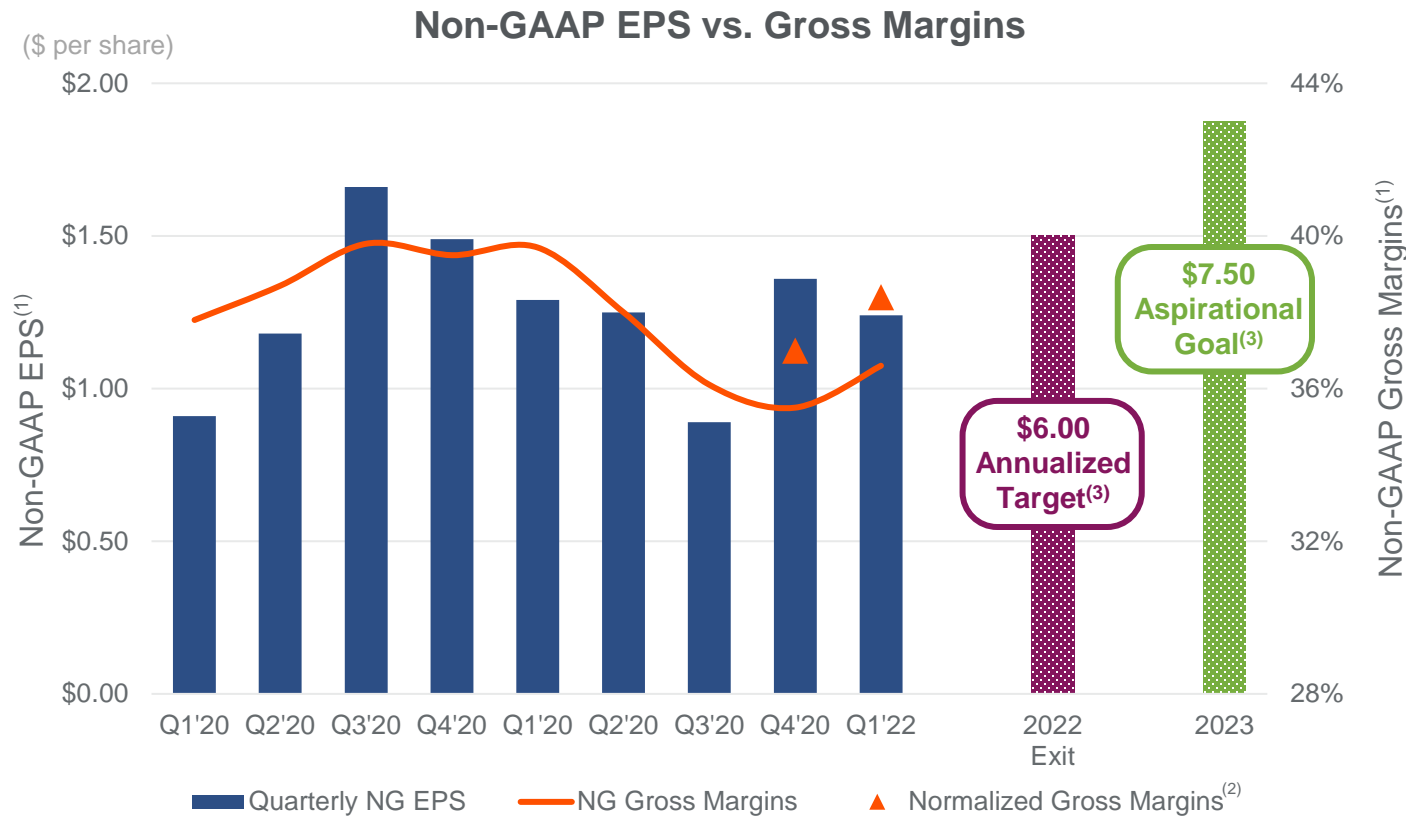
FROM LIMITED VISIBILITY TO EXTENDED VISIBILITY



(1) These examples of current and historical backlog are estimates timing of revenue delivery and should not be treated as guidance

REACCELERATING EARNINGS GROWTH ON SUPPLY MITIGATION

EARNINGS AND MARGINS TO ACCELERATE AS SUPPLY IMPROVES



COST & SUPPLY MITIGATION ACTIONS

- Recover a portion of high material premiums from customers, which temporary impacts margins
- Pass along structural inflation in material costs
- Expand strategic sourcing with key suppliers
- Secure long-term agreements
- Requalify alternative ICs by partnering with customers
- Redesign boards when necessary

(1) Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation
 (2) Normalized gross margins are estimates excluding the impact of premium recoveries
 (3) These figures represent our aspirational goals and should not be treated as guidance

PRE-SUPPLY CONSTRAINT FINANCIAL FRAMEWORK

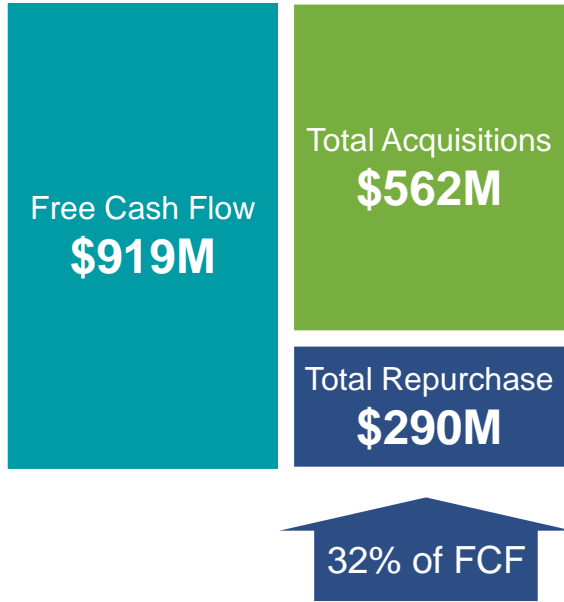
	3-YEAR ASPIRATIONAL GOALS	LONG-TERM ORGANIC FINANCIAL FRAMEWORK	INORGANIC GROWTH ASSUMPTIONS	LONG-TERM VISION (6-8 YEARS)
Revenue (\$M)	\$1,650	5-6% Net CAGR	Add ~\$500M	\$2,500
Non-GAAP Operating Margins ⁽¹⁾	21%	OPEX at ½ rev. CAGR 35-45% incr. margins	>10% acquired margins	21%
Non-GAAP EPS ⁽¹⁾ (\$/sh)	\$7.50	>2X revenue CAGR	Accretive in Year 1	\$12.00
ROIC	23%	Maintain >20%	Targeted ROIC at >10%	>20%

CLEAR ROADMAP TO CREATE LONG-TERM SHAREHOLDER VALUE

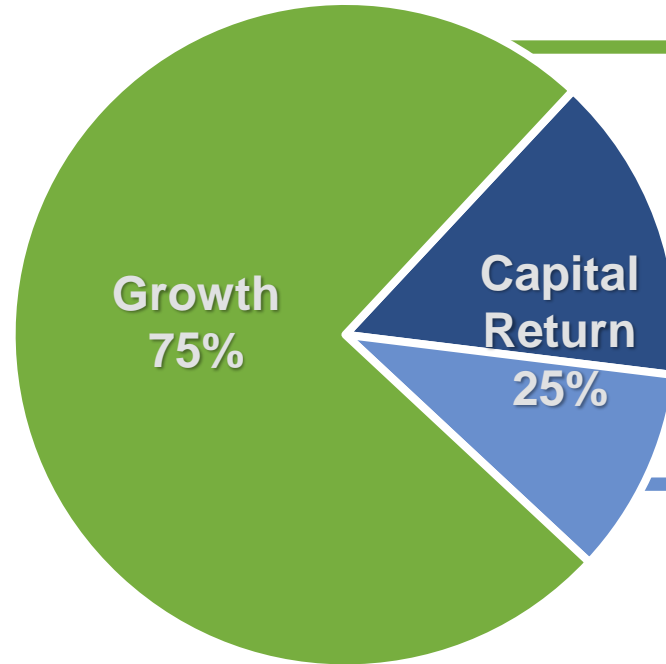
CAPITAL ALLOCATION PLAN

Capital Allocation Track Record

2014 to 2021 Total



Allocation of Free Cash Flow



GROWTH: ~75%

- M&A Engine with a disciplined process
- Building a solid funnel
- Maintain gross debt leverage at 1.0-1.5x, and comfortable raising to 2.5X
- Ample liquidity with an unused LOC of \$150M and accordion of \$250M

SHARE REPURCHASE: ~15%

- Opportunistic program to take advantage of market volatility
- Repurchased \$78M in 2021

DIVIDEND PROGRAM: ~10%

- Quarterly dividend program at \$0.10/share
- Yield at ~0.5% with room to future increase
- Supported by financial strength, scale and cash flow



Strong Balance Sheet
supports continued inorganic growth

PRECISION POWER LEADER FOR THE DIGITAL ECONOMY



PURE PLAY POWER LEADER

Strategic focus on precision power ensures sustainable advantage and scale



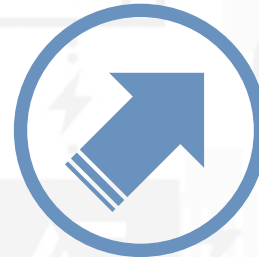
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ACCELERATING EARNINGS

Capture long life-cycle revenues and optimize margins to grow EPS >2X faster than revenue

The text 'THANK YOU' in a dark blue, all-caps, sans-serif font, centered on a white background. The background features a collage of images: a person in a surgical mask and cap, a microchip, and two communication towers.

THANK YOU

GUIDANCE

Q2 2022 Guidance	
Revenue	\$395M +/- \$25M
GAAP EPS from continuing operations	\$0.65 +/- \$0.30
Non-GAAP EPS*	\$1.05 +/- \$0.30

QUARTERLY NON-GAAP FINANCIALS*

Quarterly Trend

(figures in \$ millions, except percentage and EPS)

All figures from Continuing Operations

	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1
Backlog	300.1	280.1	281.5	290.7	405.7	534.7	771.4	927.8	1,012.4
Revenue	315.5	339.9	389.5	371.0	351.6	361.3	346.1	396.9	397.5
Gross Profit	119.1	131.6	154.9	146.4	139.7	137.3	124.9	141.0	145.3
Gross Margin	37.8%	38.7%	39.8%	39.5%	39.7%	38.0%	36.1%	35.5%	36.6%
Total OPEX	74.7	77.8	78.9	76.9	79.5	82.6	83.6	86.1	87.6
OPEX %	23.7%	22.9%	20.3%	20.7%	22.6%	22.9%	24.2%	21.7%	22.0%
Operating Income	44.4	53.8	76.0	69.5	60.2	54.7	41.2	54.8	57.8
Operating Income %	14.1%	15.8%	19.5%	18.7%	17.1%	15.1%	11.9%	13.8%	14.5%
Depreciation	6.6	6.6	7.2	7.3	7.3	7.5	7.9	8.1	8.4
EBITDA	51.0	60.4	83.2	76.8	67.6	62.2	49.1	63.0	66.1
EBITDA %	16.2%	17.8%	21.4%	20.7%	19.2%	17.2%	14.2%	15.9%	16.6%
Other Income/(Expense)	(3.5)	(0.5)	(2.4)	(2.3)	(2.6)	(1.9)	(1.7)	(2.5)	(2.1)
Income Before Taxes	40.9	53.3	73.6	67.2	57.6	52.8	39.6	52.3	55.6
Tax Provision/(Benefit)	6.0	7.9	9.8	9.8	7.9	4.7	5.6	0.9	8.9
Tax Rate	14.6%	14.8%	13.3%	14.7%	13.7%	8.9%	14.0%	1.6%	16.0%
Non-GAAP Net Income	34.9	45.4	63.8	57.3	49.7	48.1	34.0	51.5	46.7
Net Income %	11.1%	13.4%	16.4%	15.4%	14.1%	13.3%	9.8%	13.0%	11.8%
Non-GAAP EPS	0.91	1.18	1.66	1.49	1.29	1.25	0.89	1.36	1.24
Average Shares Outstanding	38.6	38.5	38.5	38.5	38.6	38.6	38.4	37.9	37.8

Non - GAAP

NON-GAAP MEASURES

Advanced Energy's non-GAAP measures exclude the impact of non-cash related charges such as stock-based compensation and amortization of intangible assets, as well as discontinued operations, and non-recurring items such as acquisition-related costs and restructuring expenses. The non-GAAP measures included in this presentation are not in accordance with, or an alternative for, similar measures calculated under generally accepted accounting principles and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. We believe that these non-GAAP measures provide useful information to management and investors to evaluate business performance without the impacts of certain non-cash charges, non-economic foreign currency remeasurements, and other cash charges which are not part of our usual operations. We use these non-GAAP measures to assess performance against business objectives, make business decisions, develop budgets, forecast future periods, assess trends, and evaluate financial impacts of various scenarios. In addition, management's incentive plans include these non-GAAP measures as criteria for achievements. Additionally, we believe that these non-GAAP measures, in combination with its financial results calculated in accordance with GAAP, provide investors with additional perspective. To gain a complete picture of all effects on our financial results from any and all events, management does (and investors should) rely upon the GAAP measures as well, as the items excluded from non-GAAP measures may contribute to not accurately reflecting the underlying performance of the company's continuing operations for the period in which they are incurred. Furthermore, the use of non-GAAP measures has limitations in that such measures do not reflect all of the amounts associated with our results of operations as determined in accordance with GAAP, and these measures should only be used to evaluate our results of operations in conjunction with the corresponding GAAP measures.

NON-GAAP RECONCILIATION

Reconciliation of Non-GAAP measure - operating expenses and operating income, excluding certain items (in thousands)

	Three Months Ended		
	March 31,		December 31,
	2022	2021	2021
Gross profit from continuing operations, as reported	\$ 144,316	\$ 137,503	\$ 139,747
Adjustments to gross profit:			
Stock-based compensation	231	350	(19)
Facility expansion, relocation costs and other	1,284	1,838	997
Acquisition-related costs	(502)	8	234
Non-GAAP gross profit	<u>145,329</u>	<u>139,699</u>	<u>140,959</u>
Non-GAAP gross margin	36.6%	39.7%	35.5%
Operating expenses from continuing operations, as reported	99,659	93,321	97,537
Adjustments:			
Amortization of intangible assets	(5,509)	(5,384)	(5,556)
Stock-based compensation	(3,697)	(5,351)	(2,939)
Acquisition-related costs	(1,668)	(2,028)	(679)
Facility expansion, relocation costs and other	—	(51)	(17)
Restructuring charges	(1,218)	(1,038)	(2,231)
Non-GAAP operating expenses	<u>87,567</u>	<u>79,469</u>	<u>86,115</u>
Non-GAAP operating income	<u>\$ 57,762</u>	<u>\$ 60,230</u>	<u>\$ 54,844</u>
Non-GAAP operating margin	14.5%	17.1%	13.8%

Reconciliation of Non-GAAP measure - income excluding certain items (in thousands)

	Three Months Ended		
	March 31,		December 31,
	2022	2021	2021
Income from continuing operations, less non-controlling interest, net of income taxes	\$ 36,876	\$ 38,358	\$ 39,753
Adjustments:			
Amortization of intangible assets	5,509	5,384	5,556
Acquisition-related costs	1,166	2,036	913
Facility expansion, relocation costs, and other	1,284	1,889	1,014
Restructuring charges	1,218	1,038	2,231
Unrealized foreign currency (gain) loss	(1,285)	(2,202)	(134)
Acquisition-related costs and other included in other income (expense), net	—	87	(3,093)
Tax effect of non-GAAP adjustments	(1,069)	(1,284)	3,017
Non-GAAP income, net of income taxes, excluding stock-based compensation	<u>43,699</u>	<u>45,306</u>	<u>49,257</u>
Stock-based compensation, net of taxes	3,025	4,362	2,233
Non-GAAP income, net of income taxes	<u>\$ 46,724</u>	<u>\$ 49,668</u>	<u>\$ 51,490</u>

Reconciliation of non-GAAP measure - per share earnings excluding certain items (in thousands)

	Three Months Ended		
	March 31,		December 31,
	2022	2021	2021
Diluted earnings per share from continuing operations, as reported	\$ 0.98	\$ 0.99	\$ 1.05
Add back:			
Per share impact of non-GAAP adjustments, net of tax	0.26	0.30	0.31
Non-GAAP per share earnings	<u>\$ 1.24</u>	<u>\$ 1.29</u>	<u>\$ 1.36</u>

RECONCILIATION OF GAAP TO NON-GAAP GUIDANCE

Reconciliation of Q2 2022 Guidance

	<u>Low End</u>	<u>High End</u>
Revenue	\$370 million	\$420 million
Reconciliation of non-GAAP earnings per share		
GAAP earnings per share	\$ 0.35	\$ 0.95
Stock-based compensation	0.15	0.15
Amortization of intangible assets	0.14	0.14
Restructuring and other	0.19	0.19
Tax effects of excluded items	<u>(0.05)</u>	<u>(0.05)</u>
Non-GAAP earnings per share	<u>\$ 0.75</u>	<u>\$ 1.35</u>