

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

A Best-in-Class Industrial Growth Enterprise

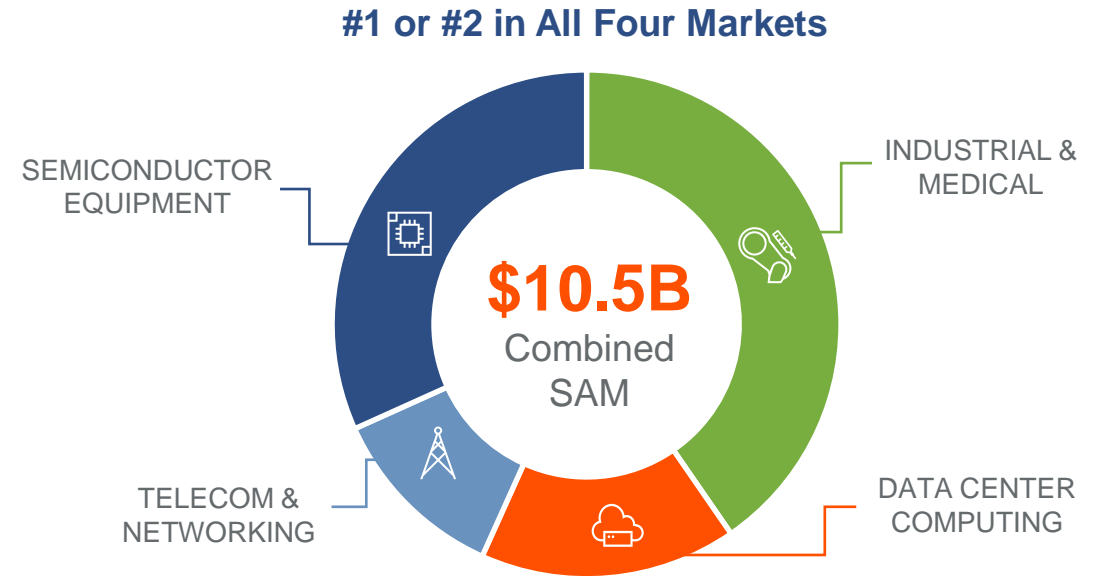
August 2022

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 August 3, 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.

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



700+
Patents Issued Globally



\$1.46B
2021 Revenue



\$211M
~15% Non-GAAP Operating Income

PRECISION POWER LEADER FOR THE DIGITAL ECONOMY



PURE PLAY POWER LEADER

Strategic focus on precision power ensures sustainable advantage and scale



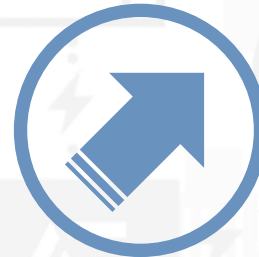
OUTPERFORMING MARKETS

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



PROPRIETARY SOLUTIONS

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

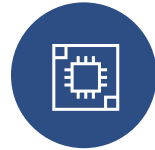


ACCELERATING EARNINGS

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

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



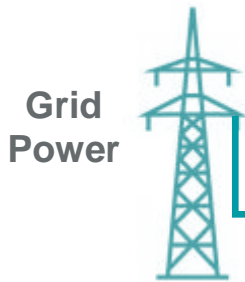
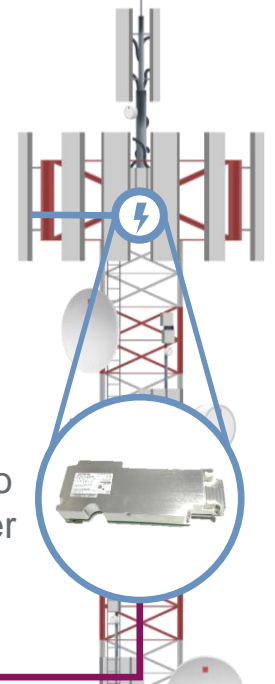
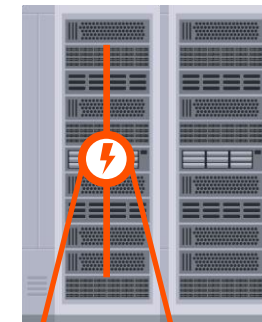
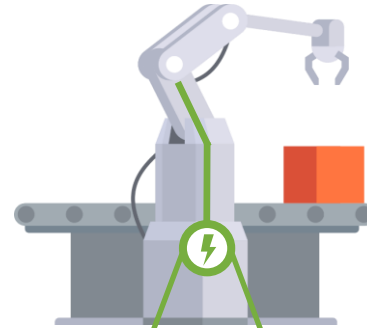
INDUSTRIAL & MEDICAL



DATA CENTER COMPUTING



TELECOM & NETWORKING



Grid Power

Facility Power

Process Power

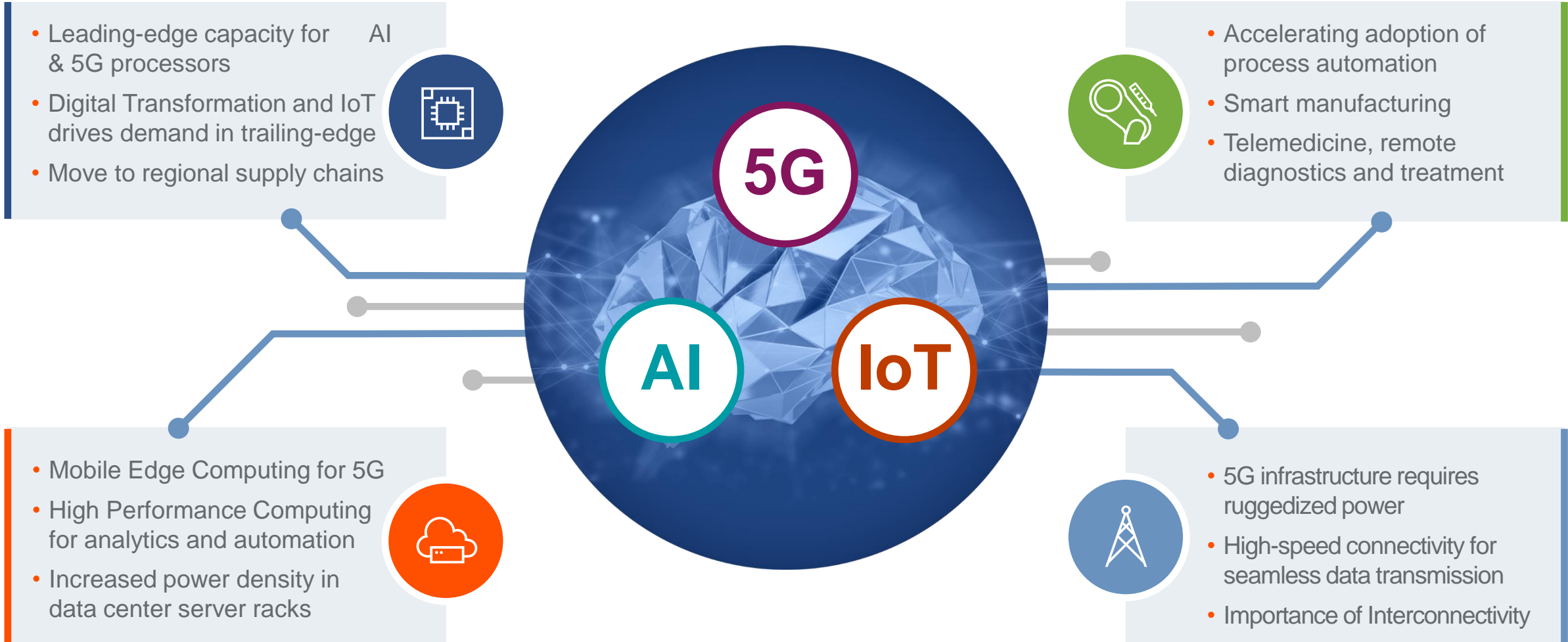
Custom Power

Server Power

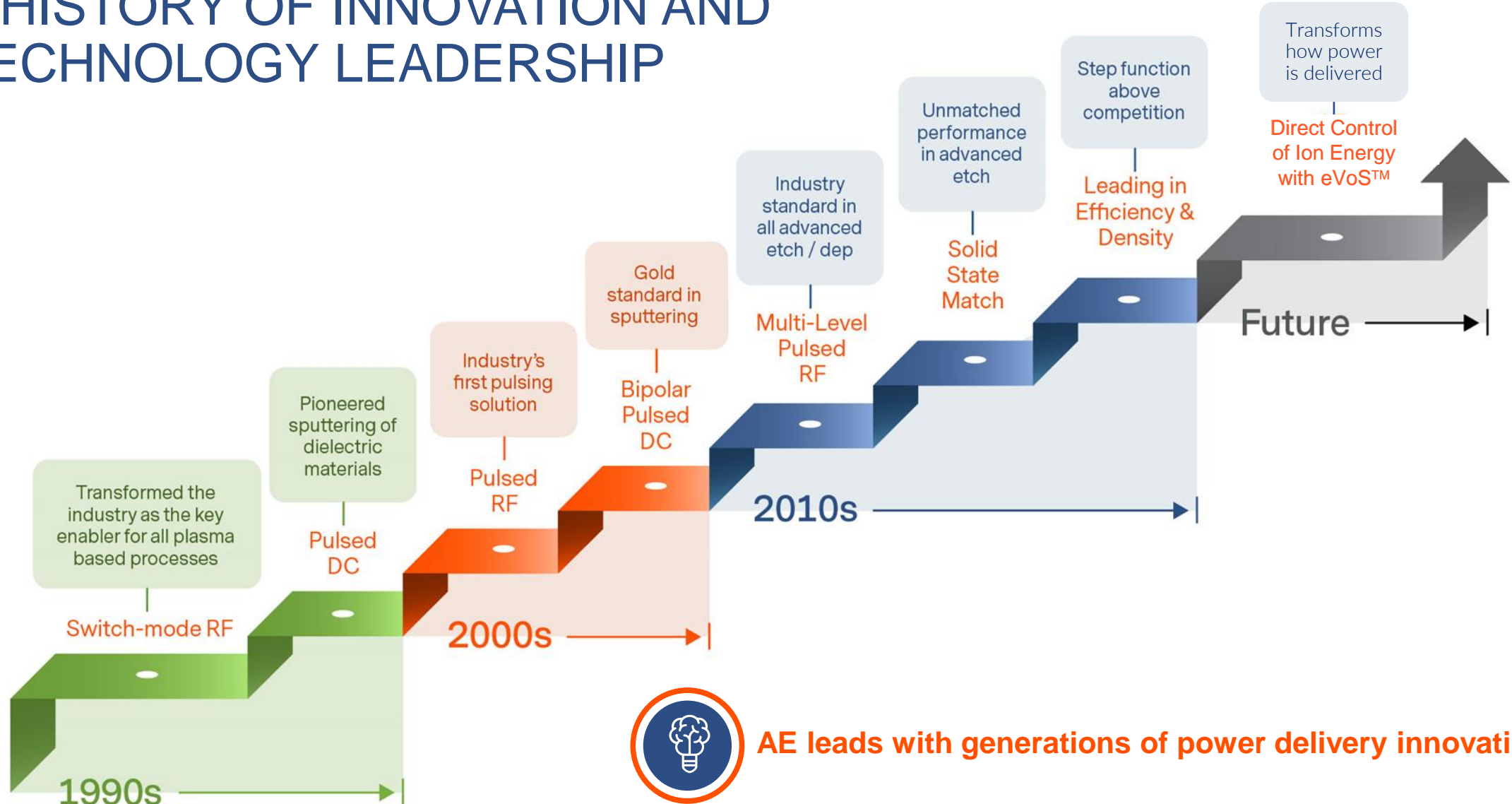
Radio Power

>70% of Revenue Comes from Proprietary Products

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



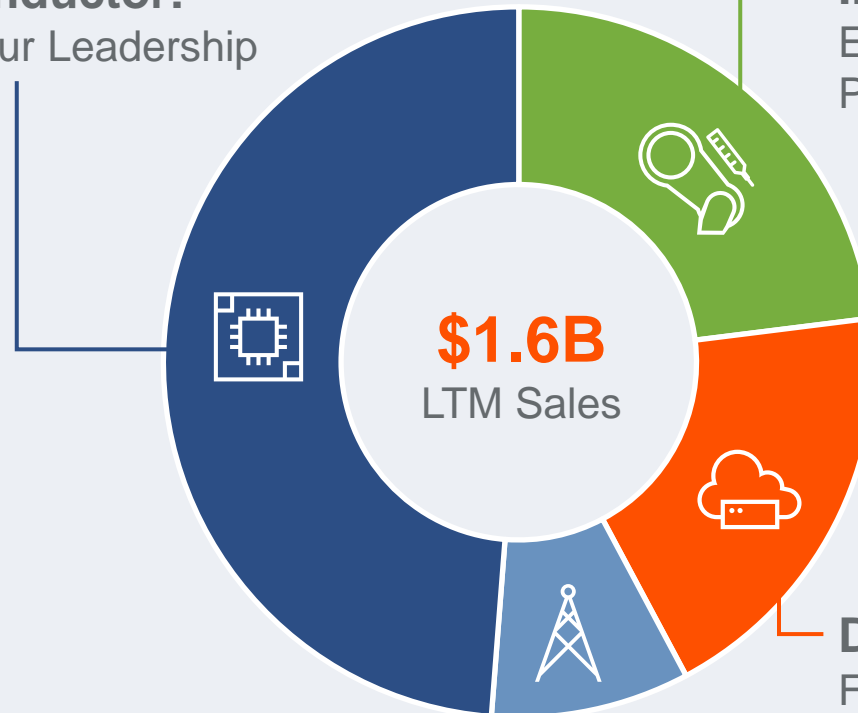
Leverage Strong Financials and Increased Scale to Capitalize on **NEW OPPORTUNITIES**

Semiconductor:
Extend Our Leadership

Industrial & Medical:
Expand Our Portfolio of Proprietary Solutions

Telecom & Networking:
Target 5G Infrastructure

Data Center Computing:
From Fast Follower to Technology Leader



SEMICONDUCTOR: EXTENDING OUR LEADERSHIP

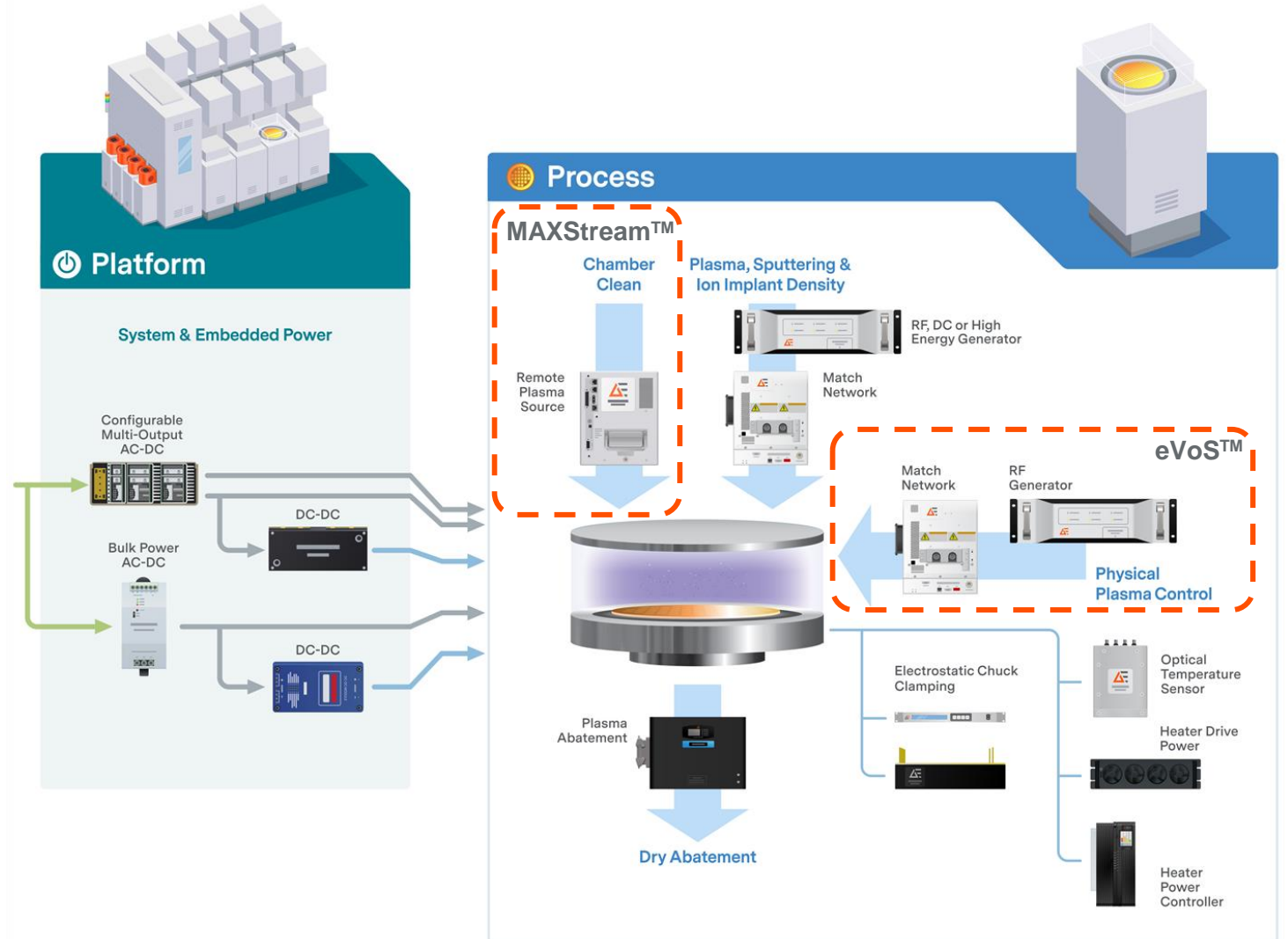
MARKET LEADER WITH PROVEN TRACK RECORD

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

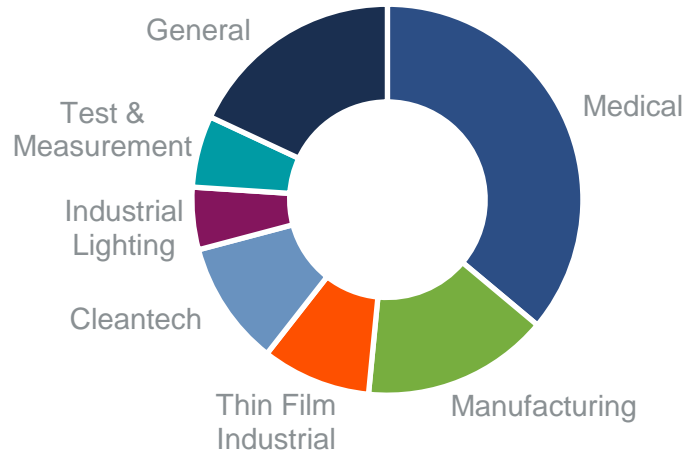
>1.2X AE targeted Semi revenue CAGR over WFE CAGR



INDUSTRIAL & MEDICAL: EXPANDING OUR PORTFOLIO OF PROPRIETARY SOLUTIONS

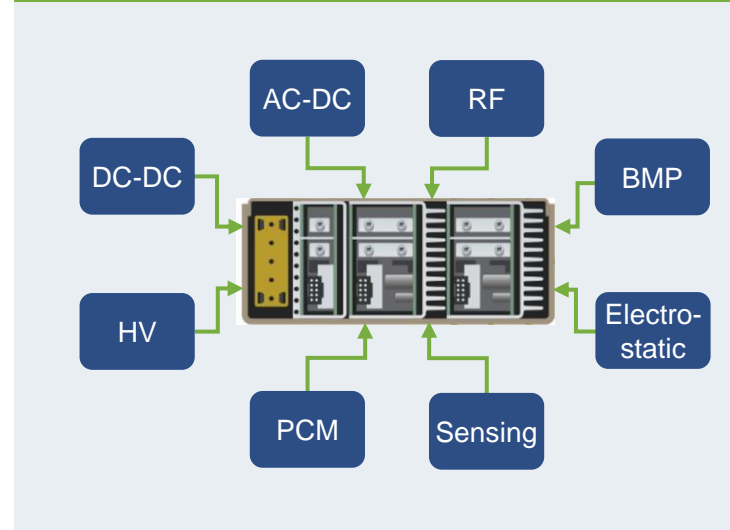
LARGE MARKET WITH WIDE RANGE OF NICHE OPPORTUNITIES

Large SAM of \$4.3B



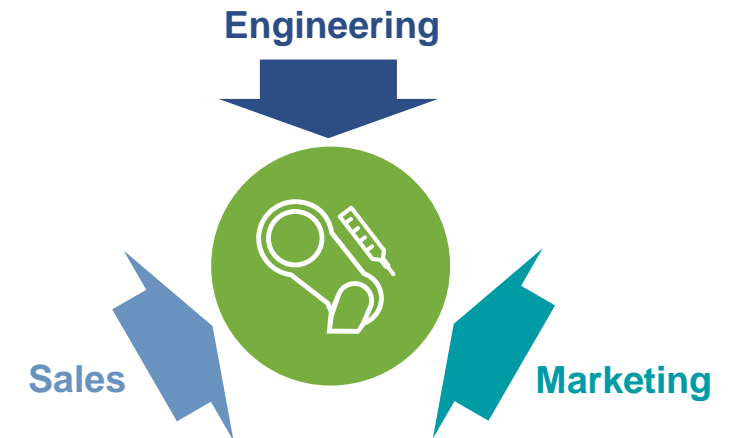
- Large SAM consists of many small and medium **high-value opportunities**
- Target long-life cycle and proprietary applications to capture **sole-source positions**

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

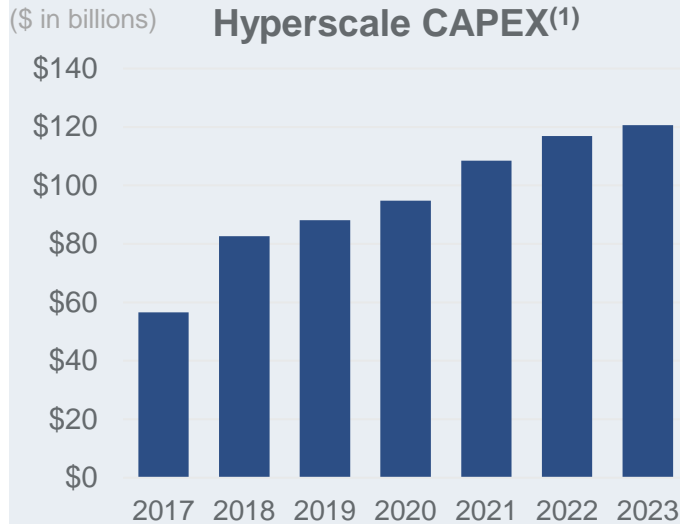
ACCELERATING INVESTMENTS TO DRIVE GROWTH



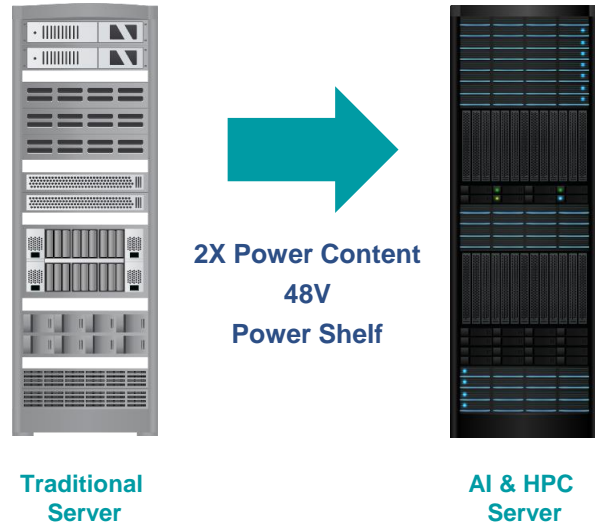
- **Allocate more** engineering, sales and marketing resources to I&M applications
- Grow **design win funnel**, accelerate cross selling and drive profitable revenue growth

DATA CENTER COMPUTING: FROM FAST FOLLOWER TO TECHNOLOGY LEADER

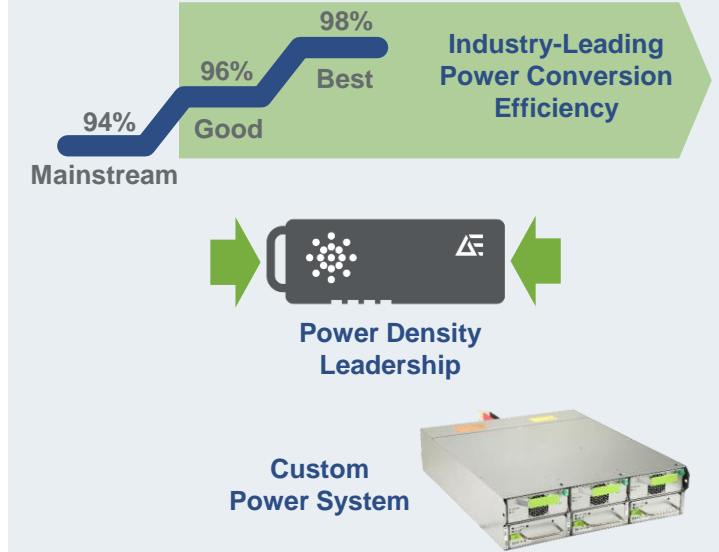
GROWING INVESTMENTS



MORE HIGH VALUE CONTENT



AE TECHNOLOGY LEADERSHIP

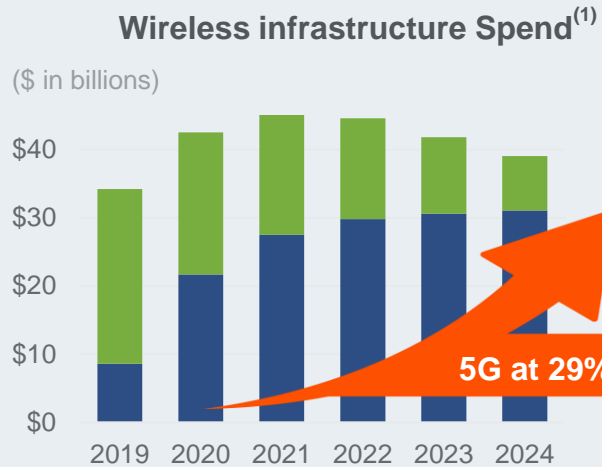


OUR WINNING STRATEGIES

- **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

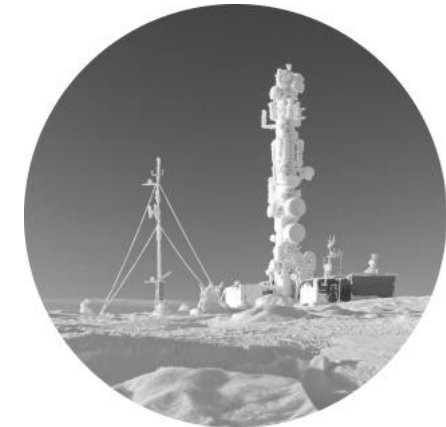
WHY WE WIN

- 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



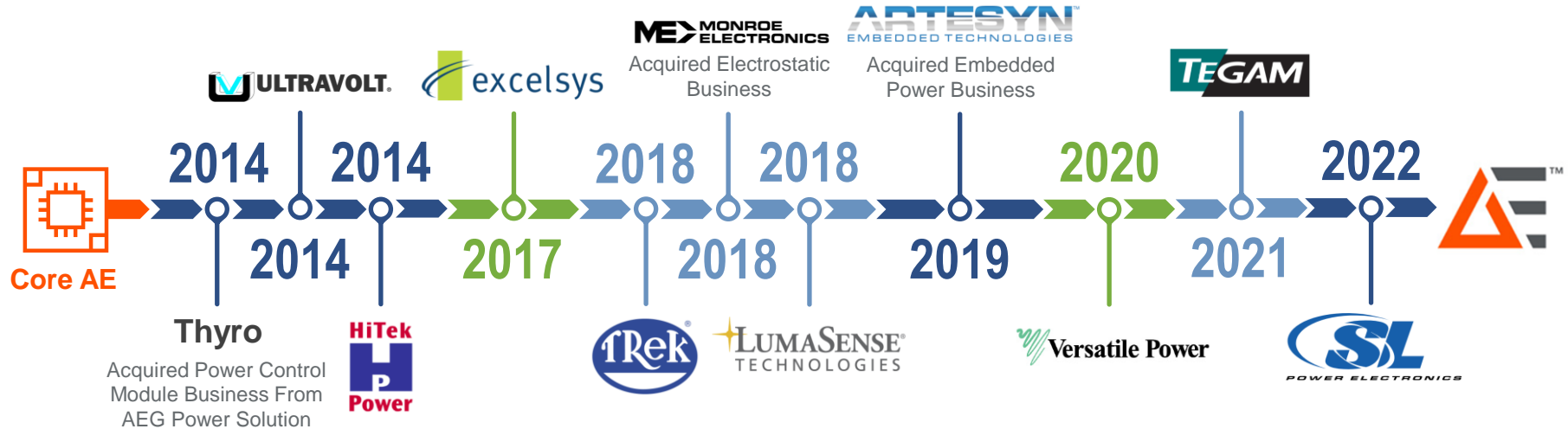
**High reliability
ruggedized power
supply for the harshest
environments**



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%

Q2 2022 RESULTS SURPASSED HIGH END OF GUIDANCE



RECORD REVENUE

\$441 million

Up 11% Q/Q



BACKLOG

\$1.17 billion

Up 15% Q/Q



NON-GAAP GROSS MARGIN⁽¹⁾

37.1%

Up 50 bps Q/Q



NON-GAAP OP MARGIN⁽¹⁾

15.8%

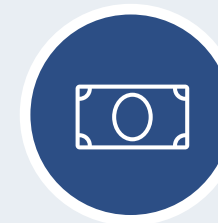
Up 130 bps Q/Q



NON-GAAP EPS⁽¹⁾

\$1.44

Up 16% Q/Q



CASH & INVESTMENTS⁽²⁾

\$375 million

Net Debt of \$8 million

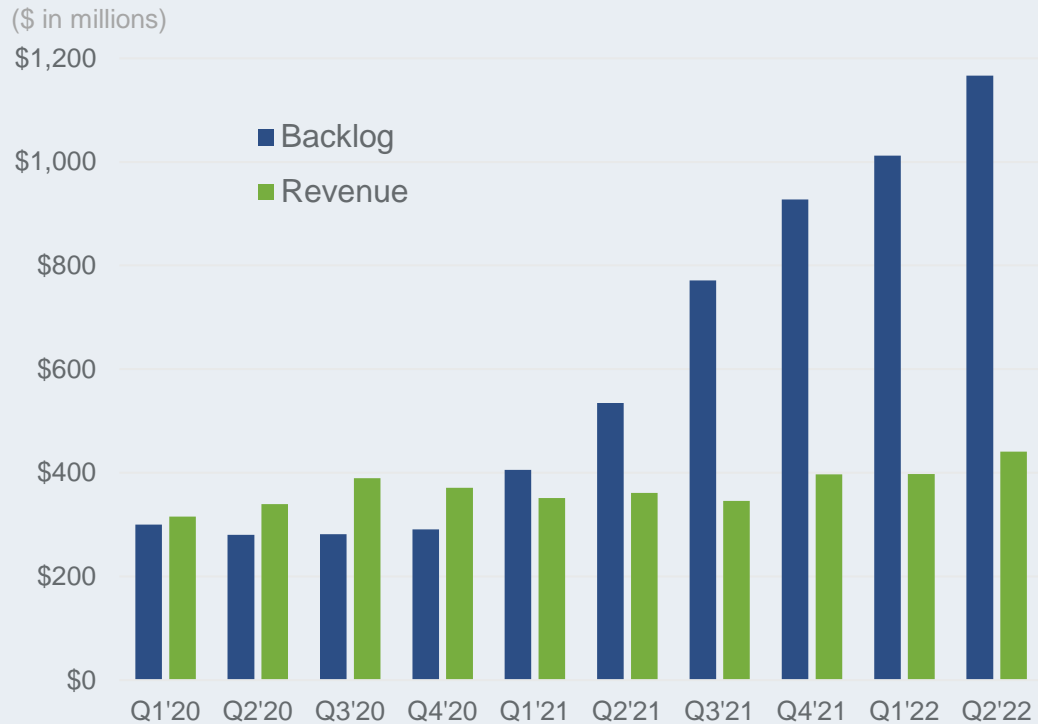
(1) Detailed explanations of non-GAAP financials and reconciliations of GAAP to non-GAAP financials can be found at the end of this presentation

(2) Cash & Investment includes total cash and equivalent of \$372.7 million and marketable securities of \$2.2 million

STRONG DEMAND AND RECORD BACKLOG

STRONG DEMAND HIGHLIGHTED BY RECORD BACKLOG

Revenue vs. Backlog

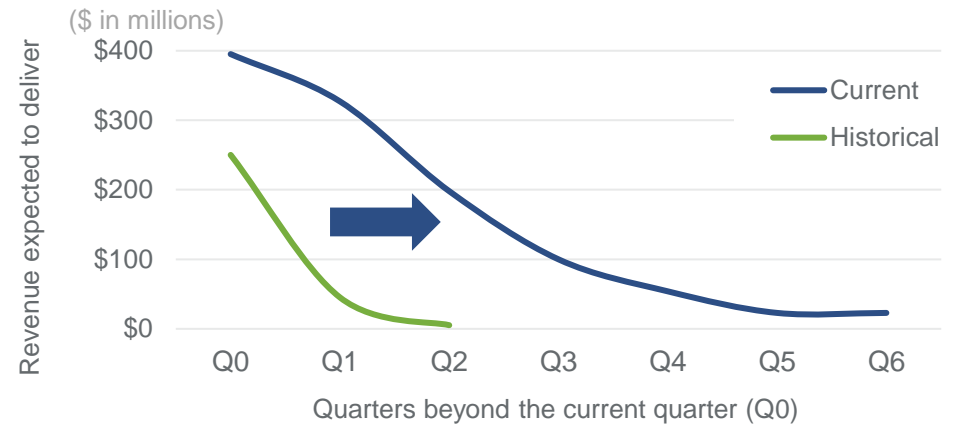


STRENGTH OF THE BACKLOG

- Proprietary products represent approximately 80% of the backlog
- ~2/3 of the backlog has customer request date in the next two quarters
- Channel inventories of AE products well below normalized levels

FROM LIMITED VISIBILITY TO EXTENDED VISIBILITY

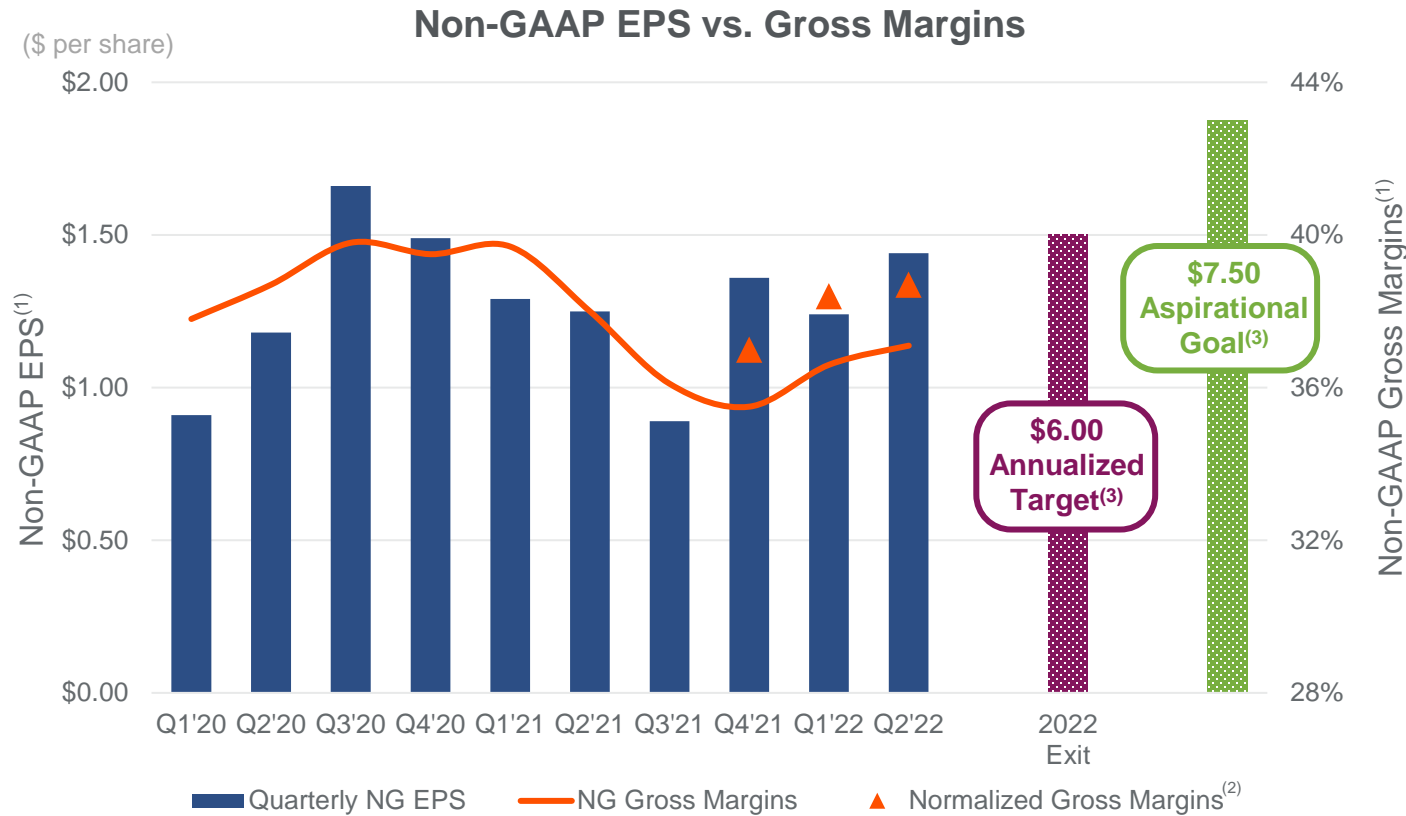
Illustrative Delivery Timing of Backlog⁽¹⁾



(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 IMPROVEMENT

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 directly with suppliers of critical ICs
- Requalify alternative ICs by partnering with customers
- Redesign boards when necessary

PRE-SUPPLY CONSTRAINT ORIGINAL FINANCIAL FRAMEWORK

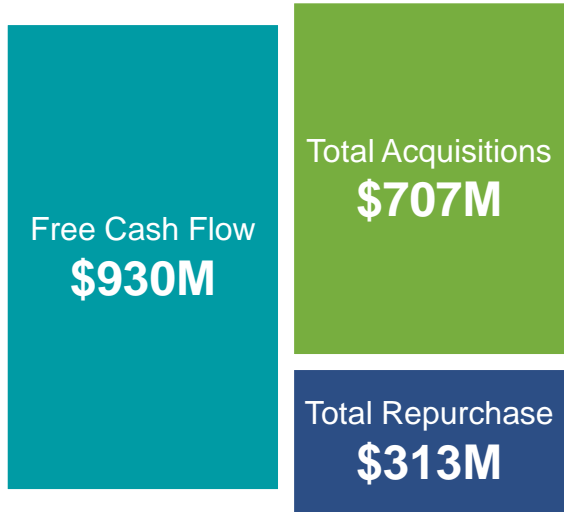
	3-YEAR ASPIRATIONAL GOALS	LONG-TERM ORGANIC FINANCIAL FRAMEWORK	INORGANIC GROWTH ASSUMPTIONS	LONG-TERM VISION (6-8 YEARS)
Revenue (\$M)	\$1,650	5-6% Net CAGR	Add ~\$500M	\$2,500
Non-GAAP Operating Margins ⁽¹⁾	21%	OPEX at ½ rev. CAGR 35-45% incr. margins	>10% acquired margins	21%
Non-GAAP EPS ⁽¹⁾ (\$/sh)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

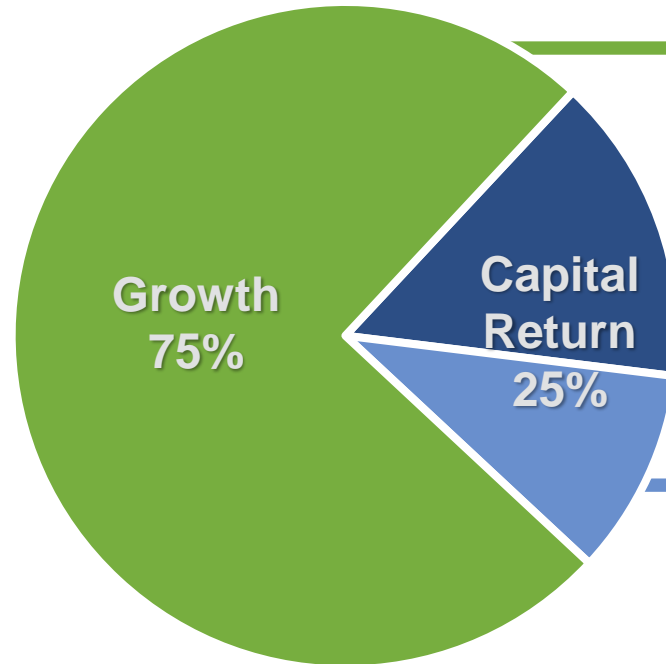
CAPITAL ALLOCATION PLAN

Capital Allocation Track Record

2014 to 1H'22 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
- Increased authorization to \$200M in July

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



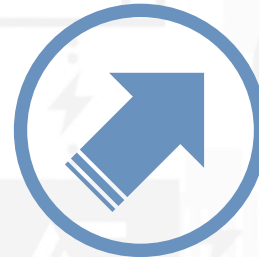
OUTPERFORMING MARKETS

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

The text 'THANK YOU' is centered in a dark blue, all-caps, sans-serif font. The background is a white geometric shape with a green and orange decorative border at the top and bottom.

THANK YOU

GUIDANCE

Q3 2022 Guidance	
Revenue	\$435M +/- \$25M
GAAP EPS from continuing operations	\$0.92 +/- \$0.30
Non-GAAP EPS ⁽¹⁾	\$1.30 +/- \$0.30

QUARTERLY NON-GAAP FINANCIALS⁽¹⁾

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	2022 Q2
Backlog	300.1	280.1	281.5	290.7	405.7	534.7	771.4	927.8	1,012.4	1,166.5
Revenue	315.5	339.9	389.5	371.0	351.6	361.3	346.1	396.9	397.5	440.9
Gross Profit	119.1	131.6	154.9	146.4	139.7	137.3	124.9	141.0	145.3	163.8
Gross Margin	37.8%	38.7%	39.8%	39.5%	39.7%	38.0%	36.1%	35.5%	36.6%	37.1%
Total OPEX	74.7	77.8	78.9	76.9	79.5	82.6	83.6	86.1	87.6	94.2
OPEX %	23.7%	22.9%	20.3%	20.7%	22.6%	22.9%	24.2%	21.7%	22.0%	21.4%
Operating Income	44.4	53.8	76.0	69.5	60.2	54.7	41.2	54.8	57.8	69.6
Operating Income %	14.1%	15.8%	19.5%	18.7%	17.1%	15.1%	11.9%	13.8%	14.5%	15.8%
Depreciation	6.6	6.6	7.2	7.3	7.3	7.5	7.9	8.1	8.4	8.5
EBITDA	51.0	60.4	83.2	76.8	67.6	62.2	49.1	63.0	66.1	78.1
EBITDA %	16.2%	17.8%	21.4%	20.7%	19.2%	17.2%	14.2%	15.9%	16.6%	17.7%
Other Income/(Expense)	(3.5)	(0.5)	(2.4)	(2.3)	(2.6)	(1.9)	(1.7)	(2.5)	(2.1)	(2.2)
Income Before Taxes	40.9	53.3	73.6	67.2	57.6	52.8	39.6	52.3	55.6	67.4
Tax Provision/(Benefit)	6.0	7.9	9.8	9.8	7.9	4.7	5.6	0.9	8.9	13.1
Tax Rate	14.6%	14.8%	13.3%	14.7%	13.7%	8.9%	14.0%	1.6%	16.0%	19.4%
Non-GAAP Net Income	34.9	45.4	63.8	57.3	49.7	48.1	34.0	51.5	46.7	54.3
Net Income %	11.1%	13.4%	16.4%	15.4%	14.1%	13.3%	9.8%	13.0%	11.8%	12.3%
Non-GAAP EPS	0.91	1.18	1.66	1.49	1.29	1.25	0.89	1.36	1.24	1.44
Average Shares Outstanding	38.6	38.5	38.5	38.5	38.6	38.6	38.4	37.9	37.8	37.7

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

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

Reconciliation of Non-GAAP measure - operating expenses and operating income, excluding certain items

	Three Months Ended		Six Months Ended		
	June 30,		June 30,		
	2022	2021	2022	2022	2021
Gross profit from continuing operations, as reported	\$ 162,158	\$ 135,033	\$ 144,316	\$ 306,474	\$ 272,536
Adjustments to gross profit:					
Stock-based compensation	402	215	231	633	565
Facility expansion, relocation costs and other	1,187	1,997	1,284	2,471	3,835
Acquisition-related costs	64	84	(502)	(438)	92
Non-GAAP gross profit	<u>163,811</u>	<u>137,329</u>	<u>145,329</u>	<u>309,140</u>	<u>277,028</u>
Non-GAAP gross margin	37.1%	38.0%	36.6%	36.9%	38.9%
Operating expenses from continuing operations, as reported	109,393	93,953	99,659	209,052	187,274
Adjustments:					
Amortization of intangible assets	(6,523)	(5,513)	(5,509)	(12,032)	(10,897)
Stock-based compensation	(4,656)	(3,229)	(3,697)	(8,353)	(8,580)
Acquisition-related costs	(4,159)	(2,328)	(1,668)	(5,827)	(4,356)
Facility expansion, relocation costs and other	—	(63)	—	—	(114)
Restructuring charges	161	(211)	(1,218)	(1,057)	(1,249)
Non-GAAP operating expenses	<u>94,216</u>	<u>82,609</u>	<u>87,567</u>	<u>181,783</u>	<u>162,078</u>
Non-GAAP operating income	<u>\$ 69,595</u>	<u>\$ 54,720</u>	<u>\$ 57,762</u>	<u>\$ 127,357</u>	<u>\$ 114,950</u>
Non-GAAP operating margin	15.8%	15.1%	14.5%	15.2%	16.1%

Reconciliation of Non-GAAP measure - income excluding certain items

	Three Months Ended			Six Months Ended		
	June 30,		March 31,		June 30,	
	2022	2021	2022	2022	2021	
Income from continuing operations, less non-controlling interest, net of income taxes	\$ 44,790	\$ 35,511	\$ 36,876	\$ 81,666	\$ 73,869	
Adjustments:						
Amortization of intangible assets	6,523	5,513	5,509	12,032	10,897	
Acquisition-related costs	4,223	2,412	1,166	5,389	4,448	
Facility expansion, relocation costs, and other	1,187	2,060	1,284	2,471	3,949	
Restructuring charges	(161)	211	1,218	1,057	1,249	
Unrealized foreign currency (gain) loss	(5,569)	885	(1,285)	(6,854)	(1,317)	
Acquisition-related costs and other included in other income (expense), net	85	899	—	85	986	
Tax effect of non-GAAP adjustments	(752)	(2,043)	(1,069)	(1,821)	(3,327)	
Non-GAAP income, net of income taxes, excluding stock-based compensation	50,326	45,448	43,699	94,025	90,754	
Stock-based compensation, net of taxes	3,946	2,636	3,025	6,971	6,998	
Non-GAAP income, net of income taxes	<u>\$ 54,272</u>	<u>\$ 48,084</u>	<u>\$ 46,724</u>	<u>\$ 100,996</u>	<u>\$ 97,752</u>	

Reconciliation of non-GAAP measure - per share earnings excluding certain items

	Three Months Ended			Six Months Ended		
	June 30,		March 31,		June 30,	
	2022	2021	2022	2022	2021	
Diluted earnings per share from continuing operations, as reported	\$ 1.19	\$ 0.92	\$ 0.98	\$ 2.16	\$ 1.91	
Add back:						
Per share impact of non-GAAP adjustments, net of tax	0.25	0.33	0.26	0.52	0.62	
Non-GAAP per share earnings	<u>\$ 1.44</u>	<u>\$ 1.25</u>	<u>\$ 1.24</u>	<u>\$ 2.68</u>	<u>\$ 2.53</u>	

RECONCILIATION OF GAAP TO NON-GAAP GUIDANCE

Reconciliation of Q3 2022 Guidance

	<u>Low End</u>	<u>High End</u>
Revenue	\$410 million	\$460 million
Reconciliation of non-GAAP earnings per share		
GAAP earnings per share	\$ 0.62	\$ 1.22
Stock-based compensation	0.15	0.15
Amortization of intangible assets	0.19	0.19
Restructuring and other	0.11	0.11
Tax effects of excluded items	<u>(0.07)</u>	<u>(0.07)</u>
Non-GAAP earnings per share	<u>\$ 1.00</u>	<u>\$ 1.60</u>