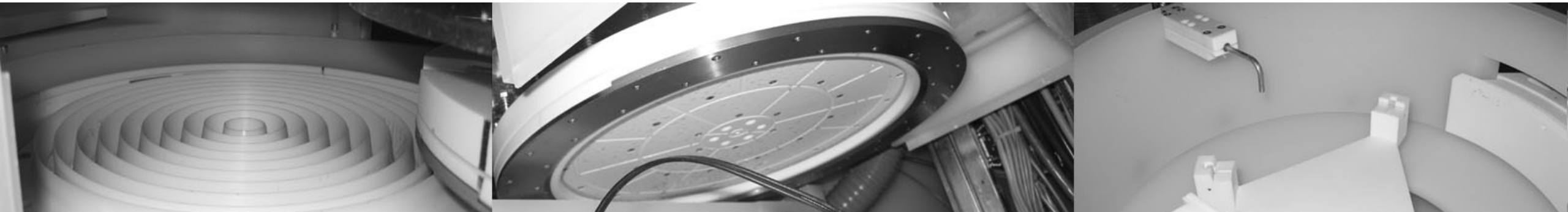




Supplemental Investor Presentation Earnings Release – Second Quarter 2023

August 4, 2023



Forward-Looking Statements. Certain statements contained in this presentation are not historical facts and may be forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “plans,” “expects,” “believes,” “anticipates,” “designed,” and similar words are intended to identify forward-looking statements. Forward-looking statements are based on ACM management’s current expectations and beliefs, and involve a number of risks and uncertainties that are difficult to predict and that could cause actual results to differ materially from those stated or implied by the forward-looking statements. A description of certain of these risks, uncertainties and other matters can be found in filings ACM makes with the U.S. Securities and Exchange Commission (the “SEC”), all of which are available at www.sec.gov. Because forward-looking statements involve risks and uncertainties, actual results and events may differ materially from results and events currently expected by ACM. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. ACM undertakes no obligation to publicly update these forward-looking statements to reflect events or circumstances that occur after the date hereof or to reflect any change in its expectations with regard to these forward-looking statements or the occurrence of unanticipated events.

Market Data. Information presented below concerning ACM’s total addressable market presents a forecast based on information provided by Gartner, Inc. in its report “Forecast: Semiconductor Wafer Fab Equipment, Worldwide, 4Q22 Update” (December 2022). You are cautioned not to rely on or give undue weight to this information. The Gartner report represents research opinions or viewpoints that are published, as part of a syndicated subscription service, by Gartner and are not representations of fact. The Gartner report speaks as of its original publication date (and not as of the date of this presentation), and the opinions expressed in the Gartner report are subject to change without notice. While ACM is not aware of any misstatements regarding the information provided in the Gartner report, it has not independently verified the accuracy or completeness of that information, which involves numerous assumptions and is subject to risks and uncertainties, as well as change based on various factors, that could cause results to differ materially from the forecast presented. The industry in which ACM operates is subject to a high degree of uncertainty and risk due to variety of factors, including those described in ACM Research, Inc.’s public filings with the SEC, as described above.

Note Regarding Presentation of Non-GAAP Financial Measures. Information presented below under “Q2 2023 Summary” and “Q2 2023 Financial Results” includes certain “non-GAAP financial measures” as defined in Regulation G under the Securities Exchange Act of 1934, including non-GAAP gross margin, non-GAAP operating loss, non-GAAP basic and diluted EPS, and non-GAAP gross profit. These supplemental measures exclude the impact of stock-based compensation, non-cash change in fair value of financial liabilities and unrealized gain on trading securities, which ACM does not believe are indicative of its core operating results. A reconciliation of each non-GAAP financial measure to the most directly comparable GAAP financial measure is included under “Q2 2023 GAAP to Non-GAAP Reconciliation” below as well as in ACM’s second quarter 2023 earnings release dated August 4, 2023, which (a) has been furnished to the SEC and can be viewed at https://www.sec.gov/Archives/edgar/data/1680062/000114036123023074/brhc20052525_ex99-01.htm and (b) has been posted at, and can be downloaded from, the “Investors” content area at ACM’s website, <https://ir.acmrcsh.com/news-releases/news-release-details/acm-research-reports-first-quarter-2023-results>.

Company References. As used in this presentation, “ACM Shanghai” refers to ACM Research (Shanghai), Inc. and “ACM” refers to ACM Research, Inc. and its subsidiaries, including ACM Shanghai.

Q2 2023 Summary

Q2 2023 Financial Results

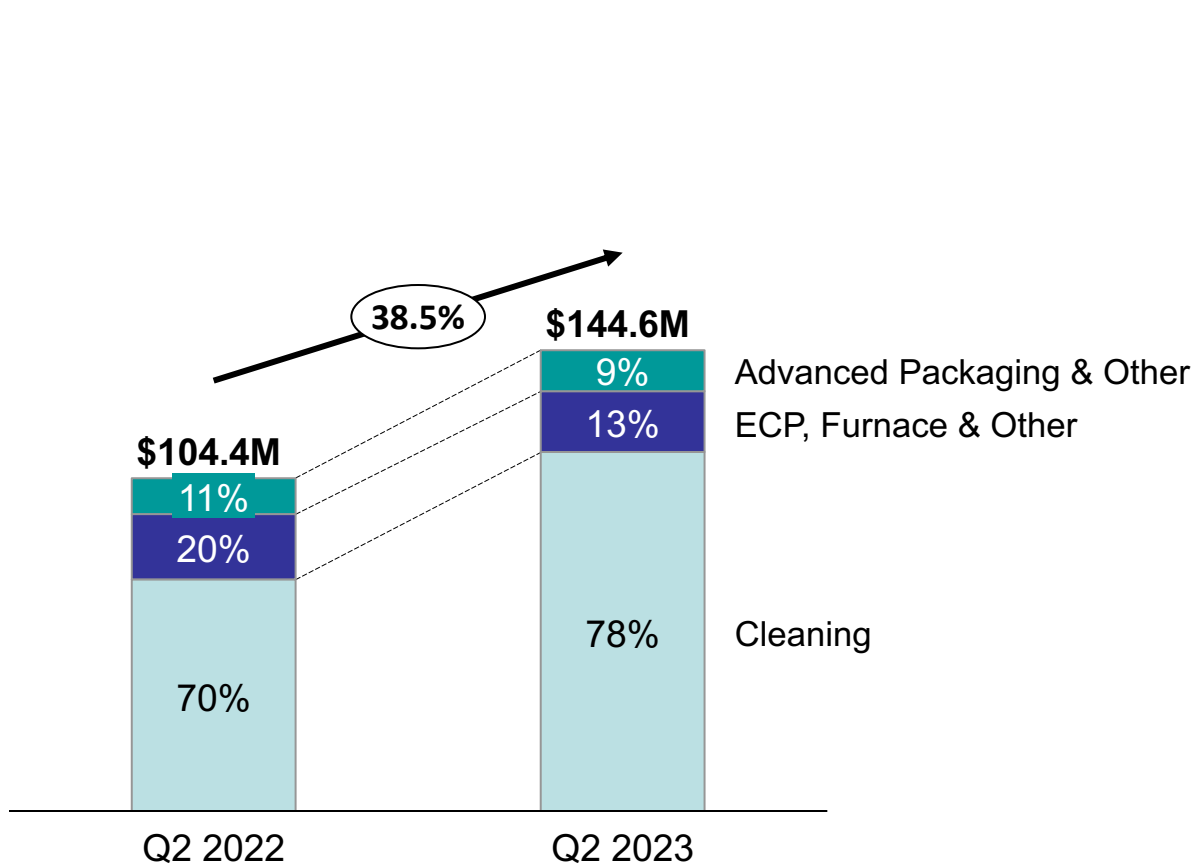
- \$144.6 million revenue (up 38.5%); total shipments of \$153 million (up 37%)
- 47.5% GAAP gross margin (versus 42.3% in Q2 2022)
- 47.6% non-GAAP gross margin (versus 42.4% in Q2 2022)
- \$30.4 million GAAP operating income (21.0% of revenue)
- \$32.4 million non-GAAP operating income (22.4% of revenue)
- \$0.41 diluted GAAP earnings per share (versus \$0.18 in Q2 2022)
- \$0.48 diluted non-GAAP earnings per share (versus \$0.22 in Q2 2022)

Key Operational Updates

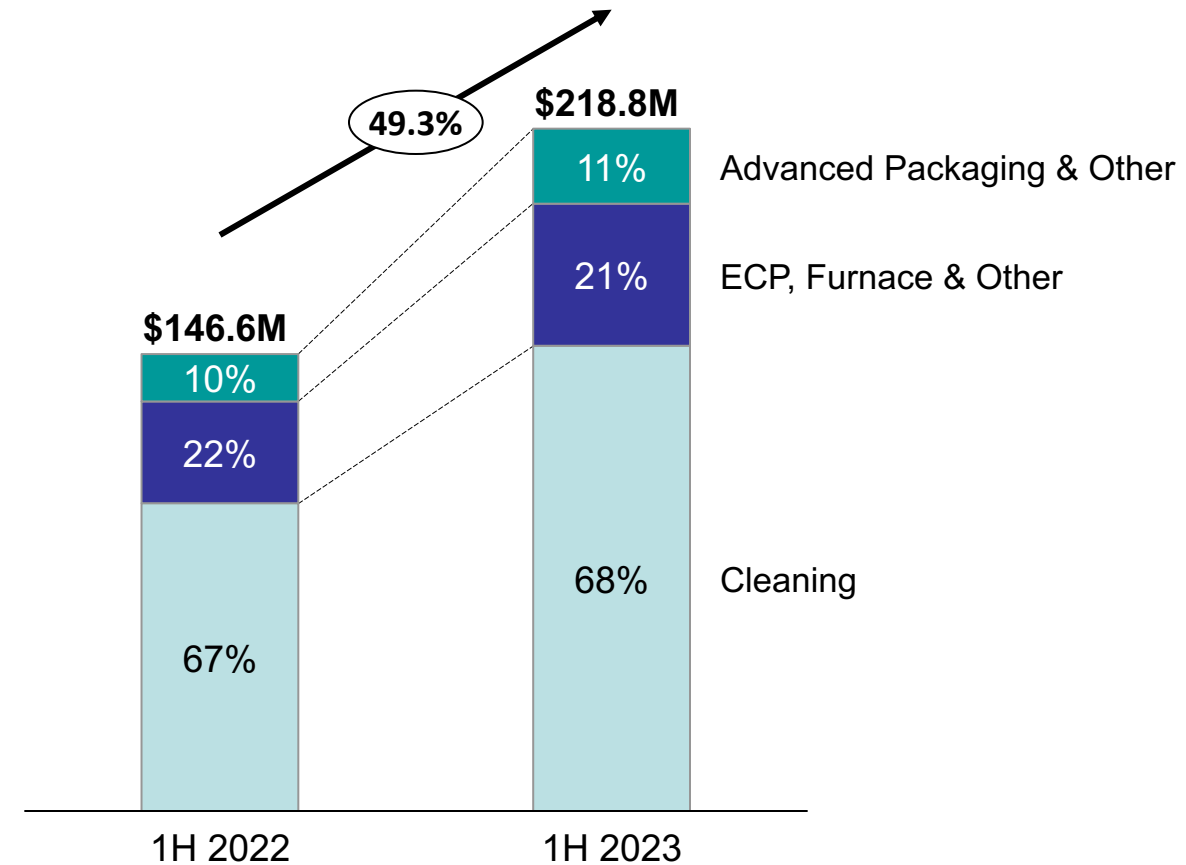
- Strong revenue and EPS as operations and industry supply-chains largely return to new normal post-COVID
- Mature node spending by our China customers, market share gains and penetration from new products and new customers
- Expanding customer base of vertical furnace
- Continued progress on sales efforts with new Track and PECVD platforms
- U.S. customer evaluation progressing
- Delivery of first evaluation tool to top-tier European customer planned for Q4 2023
- Initial production in Lingang, Shanghai planned for later in 2023

Q2 and YTD 2023 Revenue Detail

Revenue by Product: Q2'23 vs Q2'22



Revenue by Product: 1H'23 vs 1H'22



1. Cleaning: Single wafer cleaning, Tahoe and semi-critical cleaning equipment
2. ECP, Furnace & Other: ECP (front-end and packaging), furnace and other technologies
3. Advanced Packaging & Other: Advanced Packaging (excluding ECP), services & spares

Tier One Customer Base

Front-End Customers



- Leading advanced foundry in China
- ACM 2022 Revenue %: 18% (primarily Foundry / Logic)



- Mainland China's largest foundry
- Tier-one customers include Qualcomm, Broadcom and Texas Instruments
- 7 strategically located fabs in China
- Building 3 12-inch fabs in China⁽¹⁾
- SMIC Shenzhen entered into production by the end of 2022⁽¹⁾
- ACM 2022 Revenue %: 15%



- Major new entrant into NAND flash and DRAM industry
- Innovative Xtacking 2.0 unleashes potential of 3D NAND⁽²⁾
- ACM 2022 Revenue %: 10% (primarily 3D NAND)

Back-End Customers



- Largest bumping house in China and leading WLCSP production base
- Subsidiary of OSAT company JCET
- Owns one of the most advanced packaging technology R&D service platforms⁽³⁾
- Global customer base with exposure to the U.S., Western Europe and Asia



- New China-based entrant to DRAM industry
- ACM 2022 Revenue %: <10%



- Global market leader in memory (DRAM & NAND) semiconductor products
- ACM's first major customer
- ACM 2022 Revenue %: <10% (primarily DRAM)

Tier 2 and 3 China-based IC Manufacturers

- Tier 2 includes Hangzhou Silan and 4 China-based customers
- Ordered a range of semi-critical tools including the scrubber, wet etch, and backside wafer etching tool, auto wet bench, SAPS-II cleaning tool and Cu interconnect ECP map tool.
- Tier 3 includes a handful of companies investing in new capacity in IoT, EV, AI



- Leading OSAT provider – #4 globally⁽⁴⁾ and top 3 in China⁽⁴⁾
- Fastest growing OSAT provider globally with ~30% year-over-year revenue growth in 2022⁽⁴⁾
- Six production facilities serving more than half of the top ten global semiconductor manufacturers⁽⁴⁾

(1) Source: SMIC website. (2) Source: YMTC Press Release. (3) Source: JCAP Company Profile. (4) Source: TFME website.

Shanghai Facilities

ACM Shanghai HQ and R&D Center



- ACM Shanghai Headquarters and China R&D Center
- Conduct R&D and services support operations in leased facility located in the Zhangjiang Hi-Tech park in Shanghai

Chuansha Production Facilities



- Located in Chuansha area of Pudong district, approximately 11 miles from ACM Shanghai's Zhangjiang area HQ
- Three leased facilities with more than 236,00 sq ft.

Lingang R&D and Production Center



- Construction in progress for R&D and production facilities in Lingang region of Shanghai
- Approximately 30 miles from ACM Shanghai's HQ in Zhangjiang
- 1 million square feet
- Expect initial production activities to commence by end of 2023

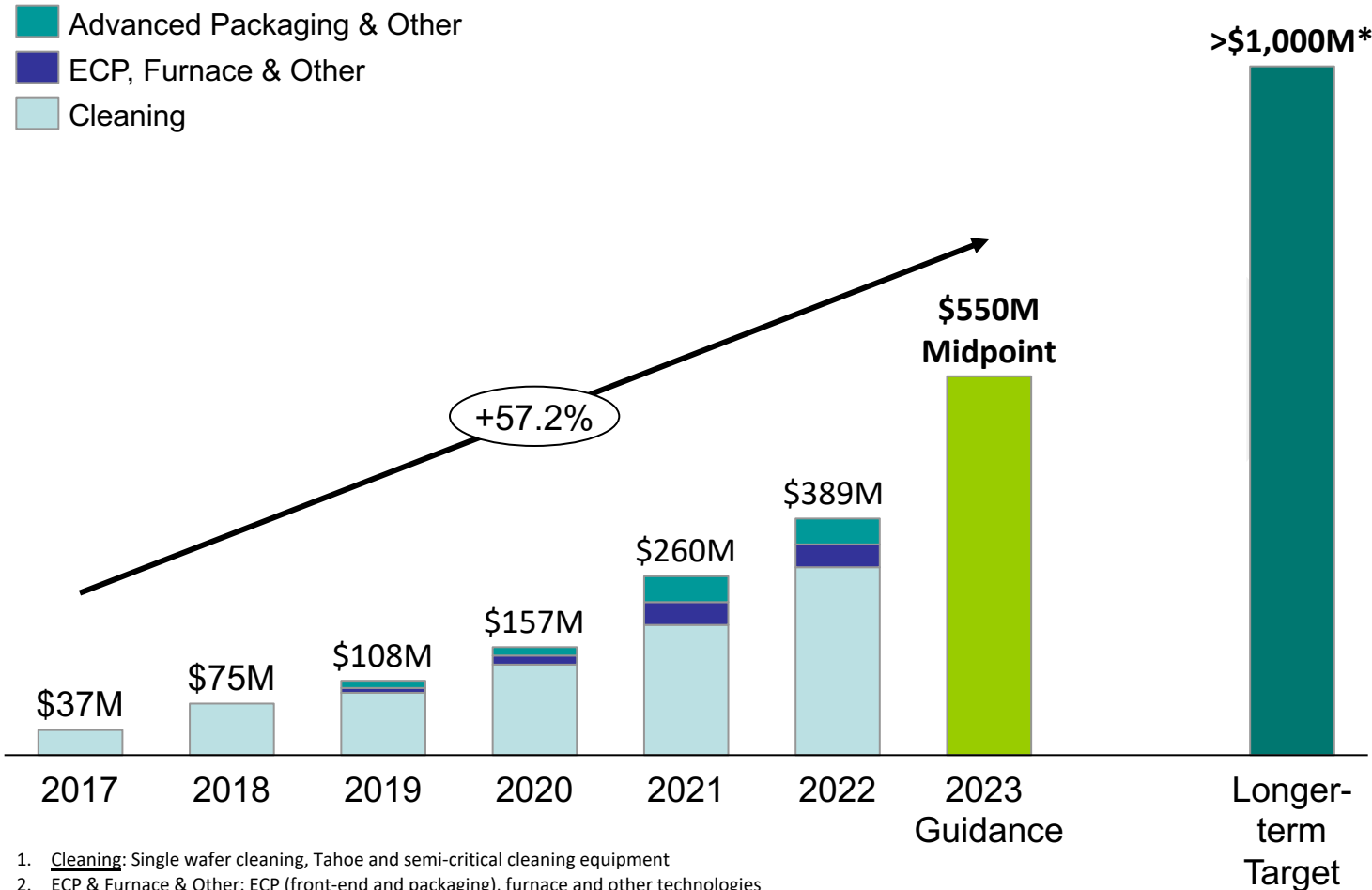
Innovative Product Introductions Expanding Serviceable Available Market (“SAM”)¹

Estimated 2022 SAM of \$16 billion addressed by ACM’s current product portfolio



¹Source: Gartner - “Forecast: Semiconductor Wafer Fab Equipment, Worldwide, 4Q22 Update” (December 2022) and Company Estimates

Internal Longer-Term Target for \$1B+ in Revenue



Longer Term Target Composition			
Mainland China	SAM ¹	ACM Research	
		Share	Revenue
Cleaning	\$0.7B	55%	\$0.4B
ECP	\$0.2B	50%	\$0.1B
Furnace	\$0.5B	35%	\$0.2B
PECVD	\$0.7B	15%	\$0.1B
Track	\$0.4B	15%	\$0.1B
Ad. Packaging	n/a	n/m	\$0.15B
	\$2.5B	39%	\$1.0B
RoW			
Cleaning	\$3.8B	-	
ECP	\$0.6B	-	
Furnace	\$2.6B	-	Upside
PECVD	\$4.0B	-	
Track	\$2.3B	-	
Ad. Packaging	n/a	-	
	\$13.2B	-	Upside
ACM China + RoW Revenue			>\$1.0B

¹Source: Gartner - "Forecast: Semiconductor Wafer Fab Equipment, Worldwide, 4Q22 Update" (December 2022) and Company Estimates:

- 2025 Gartner WFE market of \$91B
- ACM Global SAM is ~18% of Global WFE and China is 15% of ACM Global SAM

- Cleaning: Single wafer cleaning, Tahoe and semi-critical cleaning equipment
- ECP & Furnace & Other: ECP (front-end and packaging), furnace and other technologies
- Advanced Packaging & Other: Advanced Packaging (excluding ECP), services & spares

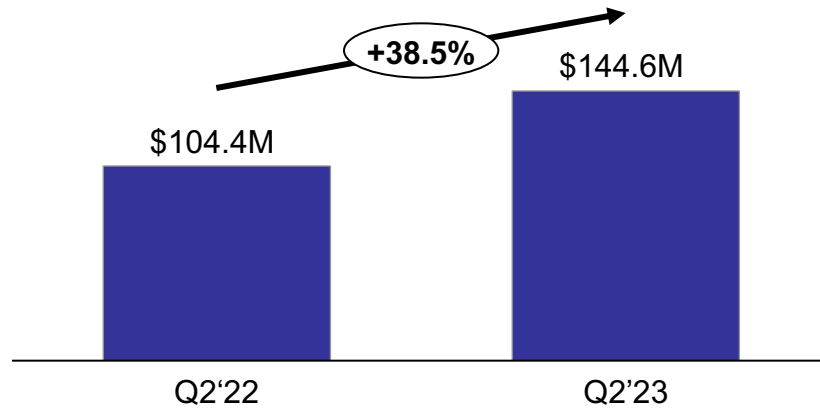
* ACM longer-term internal target, for internal planning purposes only, not a projection or estimate of actual or future revenue

2023 Outlook

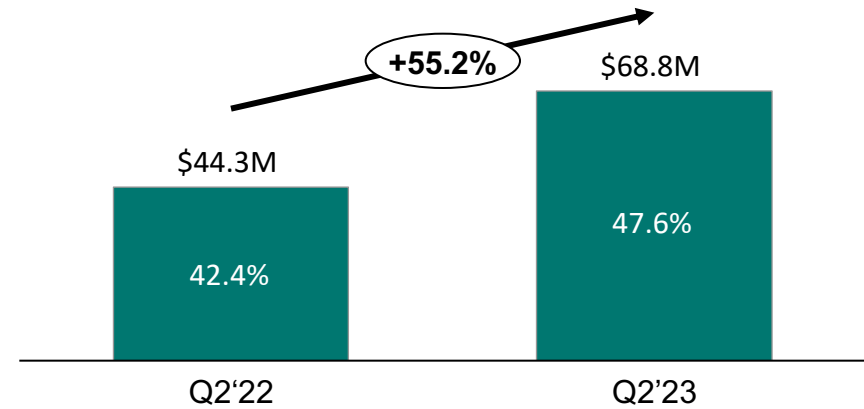
- **Maintain 2023 revenue guidance range of \$515 to \$585 million**
- **Outlook reflects, among other things:**
 - Current assessment of continuing impact from international trade policy
 - Various expected spending scenarios of key customers, supply chain constraints, and the timing of acceptances for first tools under evaluation in the field.

Q2 2023 Financial Results

Revenue

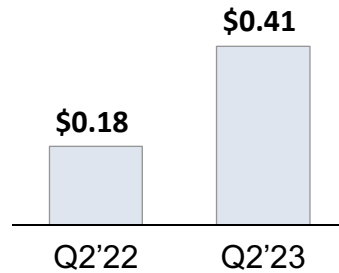


Non-GAAP Gross Profit

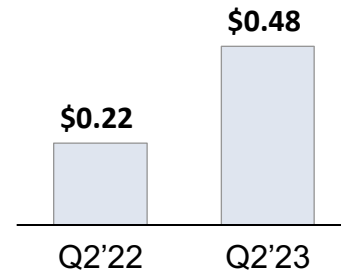


EPS

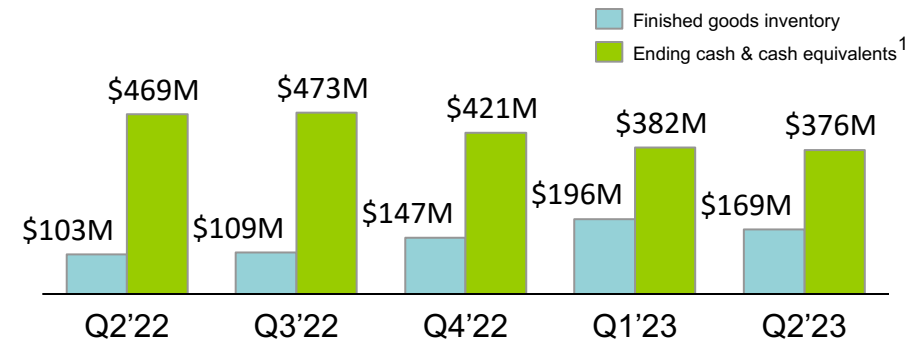
GAAP



Non-GAAP



Balance Sheet

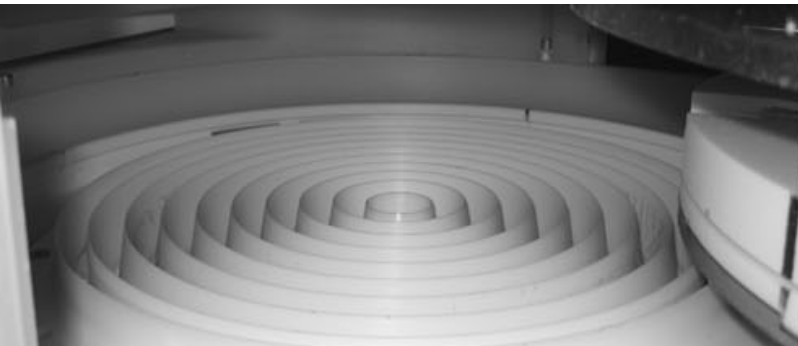


¹ Including interest bearing time deposits.

See slide 12 for reconciliation between GAAP and Non-GAAP Gross Profit and EPS



Appendix



Q2 2023 GAAP to Non-GAAP Reconciliation

	Three Months Ended June 30,							
	2023				2022			
	Actual (GAAP)	SBC	Other non- operating adjustments	Adjusted (Non-GAAP)	Actual (GAAP)	SBC	Other non- operating adjustments	Adjusted (Non-GAAP)
	<i>(In thousands)</i>							
Revenue	\$ 144,577	\$ -	\$ -	\$ 144,577	\$ 104,395	\$ -	\$ -	\$ 104,395
Cost of revenue	(75,938)	(125)	-	(75,813)	(60,238)	(140)	-	(60,098)
Gross profit	68,639	(125)	-	68,764	44,157	(140)	-	44,297
Operating expenses:								
Sales and marketing	(11,439)	(431)	-	(11,008)	(7,664)	(574)	-	(7,090)
Research and development	(20,064)	(709)	-	(19,355)	(11,367)	(656)	-	(10,711)
General and administrative	(6,706)	(752)	-	(5,954)	(5,091)	(599)	-	(4,492)
Total operating expenses	(38,209)	(1,892)	-	(36,317)	(24,122)	(1,829)	-	(22,293)
Income (loss) from operations	\$ 30,430	\$ (2,017)	\$ -	\$ 32,447	\$ 20,035	\$ (1,969)	\$ -	\$ 22,004
Unrealized loss on trading securities	(2,455)	-	(2,455)	-	(423)	-	(423)	-
Net income (loss) attributable to ACM Research, Inc.	\$ 26,825	\$ (2,017)	\$ (2,455)	\$ 31,297	\$ 12,236	\$ (1,969)	\$ (423)	\$ 14,628
Basic EPS	\$ 0.45			\$ 0.52	\$ 0.21			\$ 0.25
Diluted EPS	\$ 0.41			\$ 0.48	\$ 0.18			\$ 0.22