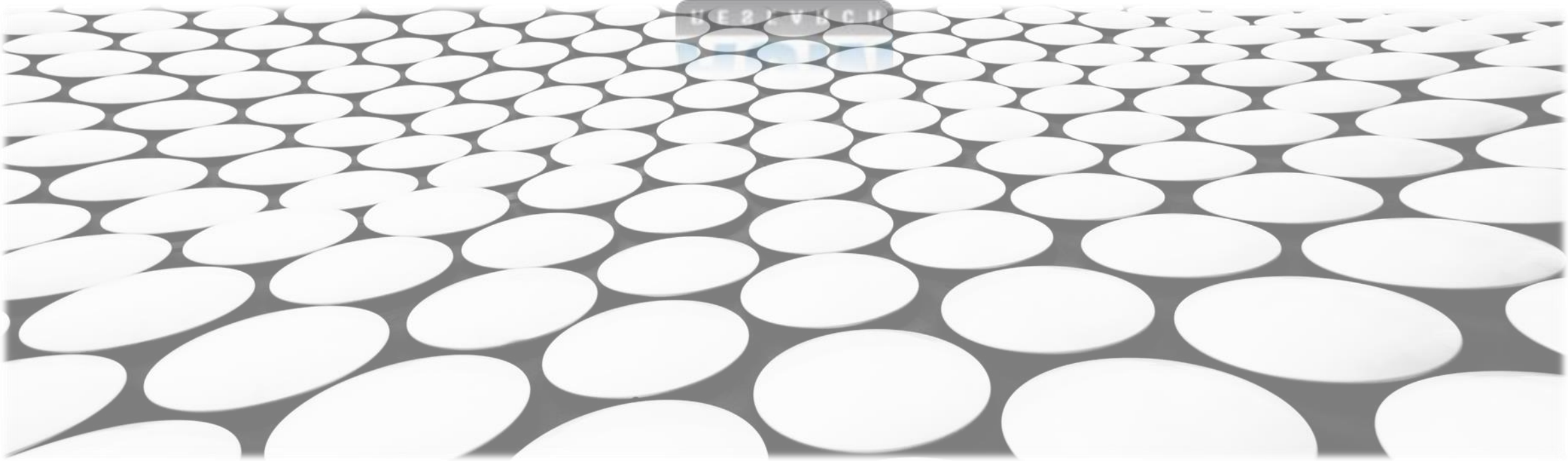
ACM Research, Inc.

May 2025 Investor Presentation



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Note Regarding Presentation of Non-GAAP Financial Measures. Information presented below under "Q1 2025 Summary" and "Q1 2025 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 income, non-GAAP basic and diluted EPS, and non-GAAP gross profit. These supplemental measures exclude the effect of stock-based compensation and unrealized gain or loss on short term investments, which ACM Research 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 below "Q1 2025 GAAP to Non-GAAP Reconciliation". ACM Research believes these non-GAAP financial measures are useful to investors in assessing its operating performance. ACM Research uses these financial measures internally to evaluate its operating performance and for planning and forecasting of future periods. Financial analysts may focus on and publish both historical results and future projections based on the non-GAAP financial measures. ACM Research also believes it is in the best interests of investors for ACM Research to provide this non-GAAP information.

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Company References. As used in this presentation, "ACM Shanghai" refers to ACM Research (Shanghai), Inc., and "ACM Research" refers to ACM Research, Inc. and its subsidiaries, including ACM Shanghai and ACM Research Korea CO., LTD. "ACM Korea" refers to all operating subsidiaries within Korea, specifically ACM Research Korea CO., LTD and Hanguk ACM CO., IT'D.

ACM Research at a Glance

- **Multi-product supplier of semiconductor equipment** to leading global semiconductor manufacturers
- **Differentiated technology** improves customer production processes with better yields and reduced chemical consumption
- **More than 537 patents** issued in the U.S., China, Japan, Singapore, South Korea and Taiwan as of 12/31/24
- **State-of-the-art production facilities** in Shanghai and Korea; R&D and Clean room facility in Oregon
- **Headquartered in Fremont, CA** with more than 2,023 employees globally as of 12/31/24

Cleaning

Flagship (SAPS, TEBO, Tahoe, Bevel Etch, SPM)

Semi-critical

ECP, Furnace & Other

Ultra ECP ap | Ultra ECP map | Ultra ECP ap-p | Ultra Fn Furnace

NEW Products: Track and PECVD

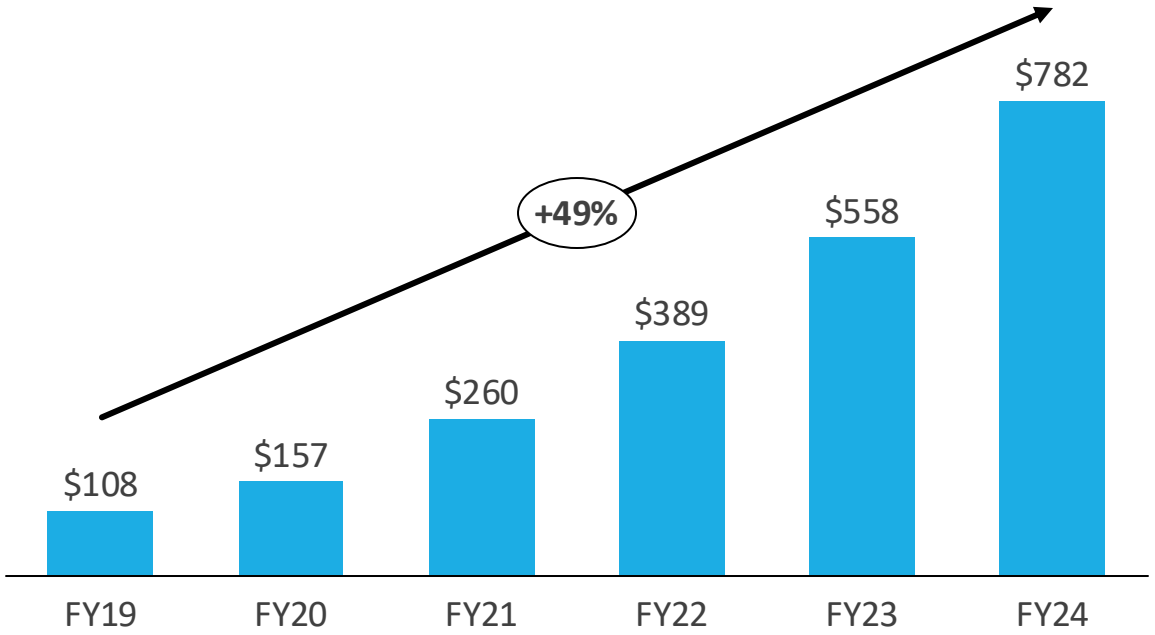
Track | PECVD

Advanced Packaging & Other

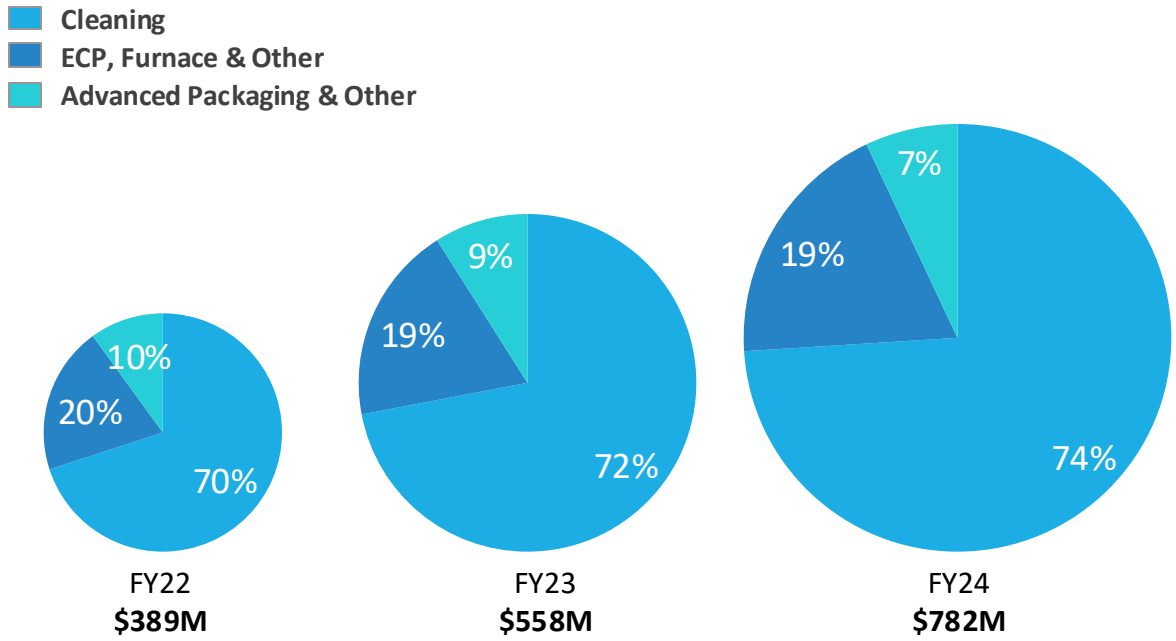
Scrubbers, coaters, developer tools, plating tools, tape frame cleaning, wet stripping, wet etching, panel level flux clean, and stress-free polishing systems, and other parts and services

Financial Highlights

Total Revenue



Product Mix



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

ACM Research achieved 49% revenue CAGR over past 5 years and has diversified its product mix into new product categories

History of Innovation and Customer Design Wins

1998 — Dr. Wang establishes ACM Research in Silicon Valley

2006 — Establishes ACM Shanghai

2013 — SK Hynix places first major production order for SAPs

2015 — YMTC, SMIC, and HLMC place SAPS orders

2017 — Ships TEBO demo unit to HLMC

2017 — Completes U.S. IPO on NASDAQ - Nov. 2017

2018 — Opens 2nd production facility in Chuansha, China, in Sep. 2018

2018 — Announces 1st P.O. for Tahoe tool

2019 — Ships Tahoe & ECP eval tools to new DRAM customer

2019 — U.S. follow on capital raise Aug. 2019

2020 — Launches SFP, furnace and semi-critical cleaning products

2021 — 4 evaluation agreements with major industry players, including a major U.S. semiconductor manufacturer

2021 — ACM Shanghai STAR Market IPO Nov. 2021

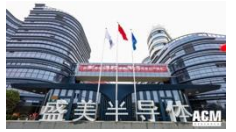
2022 — Launches Ultra Pmax™ PECVD and Ultra Track Coater/Developer ArF products

2022 — Evaluation agreement with a major European semiconductor manufacturer

2023 — ECP & Furnace segment revenue $100+ million 2023

2024 — Major performance breakthrough for Tahoe Tool

2024 — Lingang R&D and production facility Opening Ceremony Oct. 2024



2024 — Oregon/US R&D and clean room facility lab purchased Oct. 2024

Global Semiconductor Capital Equipment Supplier

ACM Research HQ
Nasdaq: ACMR

ACM Shanghai
R&D and Manufacturing Center

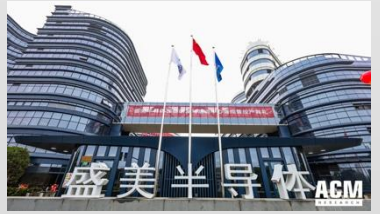
Europe Sales & Services

Hanguk ACM, ACM Korea
Research Institute &
Manufacturing Center

Oregon R&D and Clean-Room Facility

Shanghai R&D Center (Zhangjiang)

Shanghai Asia-Pacific Manufacturing Center >200,000 ft² (Chuansha)



Lingang R&D and Production Center >1.4 million ft² (Lingang)

Tier One Customer Base

Front-End Customers

- ACM 2024 Revenue %: 15%
- Leading advanced foundry in China

- ACM 2024 Revenue %: 14%
- Mainland China's largest foundry
- Tier-one customers include Qualcomm, Broadcom and Texas Instruments (1)

- ACM 2024 Revenue %: 12%
- Major new entrant into NAND flash and DRAM industry
- Innovative Xtacking 2.0 unleashes potential of 3D NAND (2)

- Global market leader in memory (DRAM & NAND) semiconductor products
- ACM's first major customer

- Leading China-based DRAM supplier

Emerging China-based IC Manufacturers

- PXW contributed ACM 2024 Revenue %: 12%
- 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

Back-End and Wafer Mfg Customers

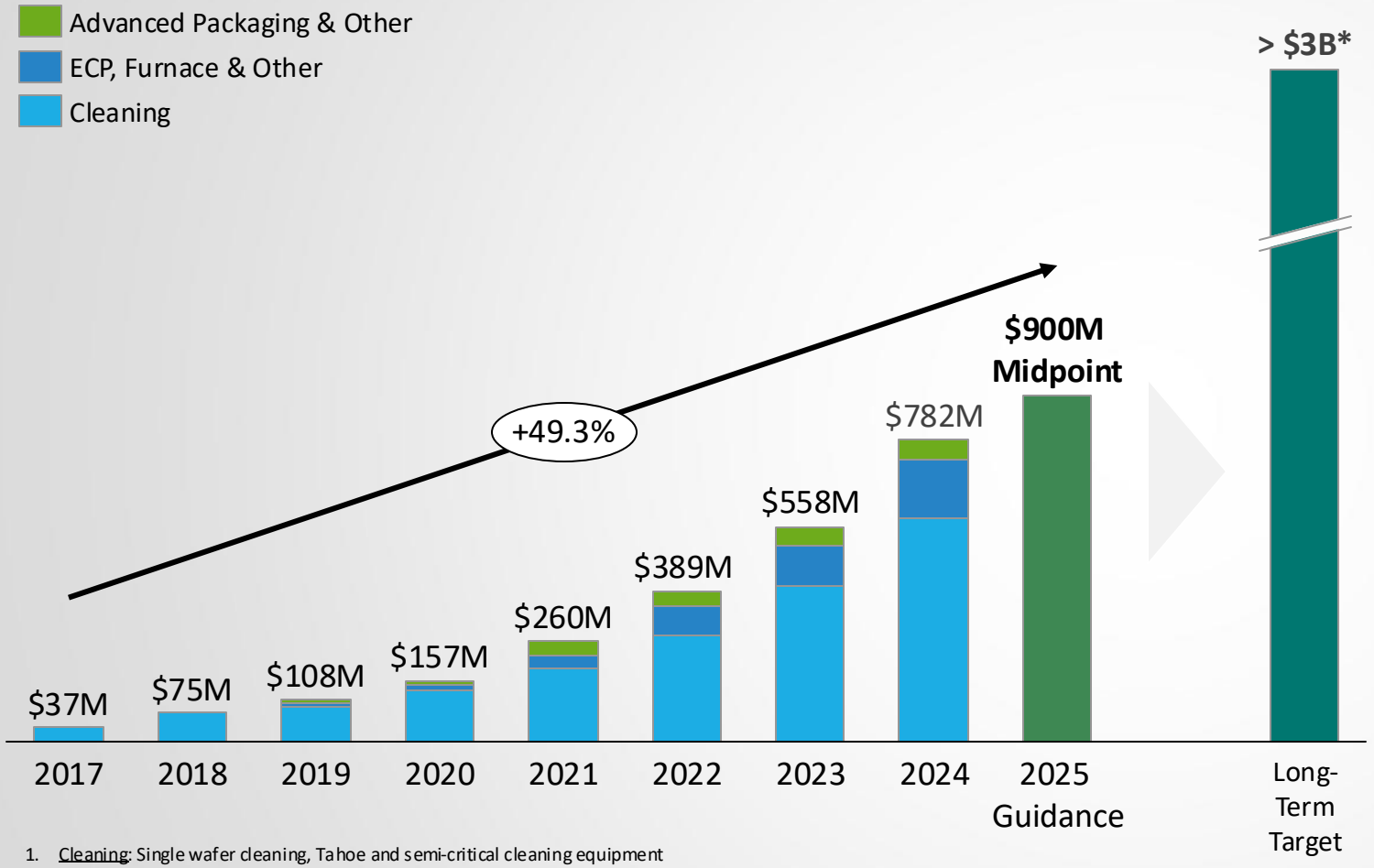
(1) Source: SMIC website. (2) Source: YMTC Press Release

Innovative Product Introductions Expanding Serviceable Available Market ("SAM")1

Estimated 2024 SAM of $18 billion addressed by ACM Research's current product portfolio

[1]Source: Gartner - "Forecast: Semiconductor Wafer Fab Equipment, Worldwide, 4Q24 Update" (December 2024) and Company Estimates

Long-Term Target for $3B+ in Revenue



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

Long-Term Target Composition

Mainland China	ACM Research SAM[1]	China SAM[2]	ACM Research Share[3]	ACM Research Revenue
Cleaning	$5.9B	$1.7B	55%	$910M
ECP	$1.0	$0.3	55%	$155
Furnace	$2.3	$0.7	15%	$100
PECVD	$4.7	$1.3	15%	$200
Track	$2.8	$0.8	10%	$80
Adv Pkg (ex ECP)	$1.2	$0.3	n/m	$50
Service & Spares	n/a	n/a	n/m	$50
	$18B	**$5B**	-	**$1.5B**

RoW	ACM Research SAM	Non-China SAM[1]	Share[3]	Revenue
Cleaning	$5.9B	$4.3B	17%	$725M
ECP	$1.0	$0.7	15%	$110
Furnace	$2.3	$1.7	10%	$170
PECVD	$4.7	$3.4	8%	$270
Track	$2.8	$2.0	8%	$160
Adv Pkg (Ex ECP)	$1.2	$0.9	n/m	$50
Service & Spares	n/a	n/a	n/m	$50
	$18B	**$13B**	-	**$1.5B**

ACM Research China + RoW Revenue >$3.0B

[1]Source: Gartner - "Forecast: Semiconductor Wafer Fab Equipment, Worldwide, 4Q24 Update" (December 2024) and Company Estimates:
- 2024 Gartner WFE market of $107.1B
- ACM Research SAM determined by management's estimated product coverage

[2]China SAM assumes China WFE is $30B

[3]Share refers to ACM Research market share target

Growth Strategy

Growth at Existing Customers

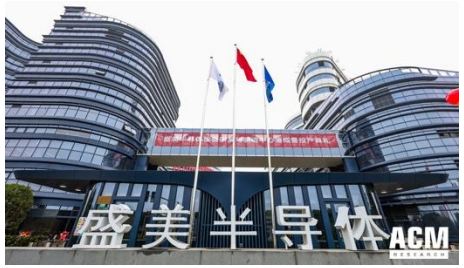
- Continue winning share at existing customers
- Continued China fab expansion, particularly in mature nodes
- Accelerating ECP and furnace product cycles
- Solid evaluation pipeline for Track & PECVD

International Expansion

- Expanding sales & services teams in U.S., Europe, Korea and SE Asia
- Reshoring efforts to U.S. underway with purchase of 39,500 sq. feet facility including 5,200 sq. feet clean room in Oregon to support global production and advanced R&D
- Multiple evaluations underway at major customers in U.S., Europe, and Asia
- Four wafer-level packaging tools scheduled to delivery to U.S. Customers in 1H 2025

New Capacity

- Shanghai Lingang production and R&D center is nearly completed.
- Moved into new headquarters in Zhangjiang Shanghai, Silicon Valley of China
- Korea R&D and production facility to support international expansion
- Oregon facility is laying the groundwork for initial production capacity



New Products

- Broad product portfolio covering 90%+ of cleaning process steps including SAPS, TEBO, Tahoe, semi-critical, SPM, and other tools.
- Plating for front and back end, furnace and semi-critical tools
- Added Track & PECVD product categories at end of 2022 that doubled ACM Research SAM to $18 billion
- Launched new panel tools –plating, cleaning, bevel etching –to address fan-out panel level packaging market
- Major performance breakthrough for flagship Ultra C Tahoe Cleaning Tool

Q1 2025 Summary

Q1 2025 Financial Results

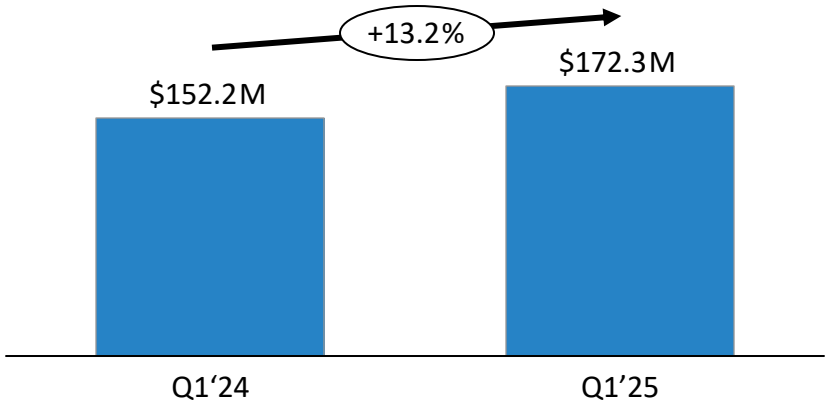
- $172.3 million revenue (up 13% y/y); total shipments of $157 million (down 36% y/y)
- 47.9% GAAP gross margin (versus 52.0% in Q1 2024)
- 48.2% non-GAAP gross margin (versus 52.5% in Q1 2024)
- $25.8 million GAAP operating income (up 2.2% y/y; 15.0% of revenue)
- $35.6 million non-GAAP operating income (down 10.6% y/y; 20.7% of revenue)
- $0.30 diluted GAAP earnings per share (versus $0.26 in Q1 2024)
- $0.46 diluted non-GAAP earnings per share (versus $0.52 in Q1 2024)

Key Operational Updates

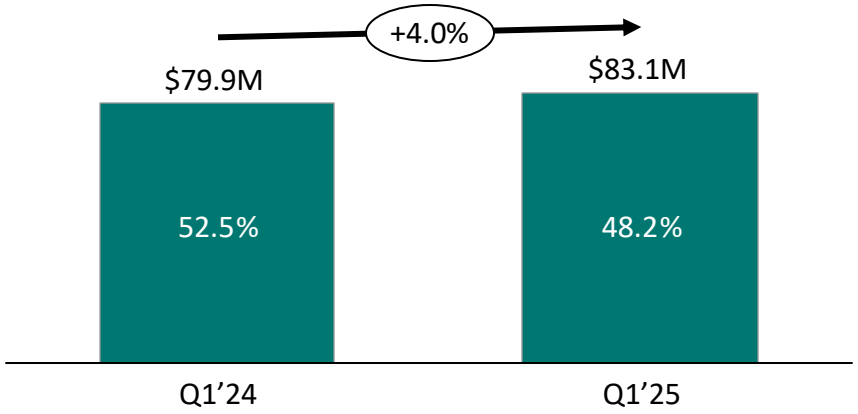
- Single-wafer high-temperature SPM tool qualified by a key logic device manufacturer in mainland China.
- Ultra ECP ap-p tool won the 2025 3D InCites Technology Enablement Award for innovation in horizontal plating for panel-level packaging.
- Appointment of Charles Pappis to Board of Directors.
- Lingang production and R&D center is nearly completed.
- Oregon facility is laying the groundwork for initial production capacity.

Q1 2025 Financial Results

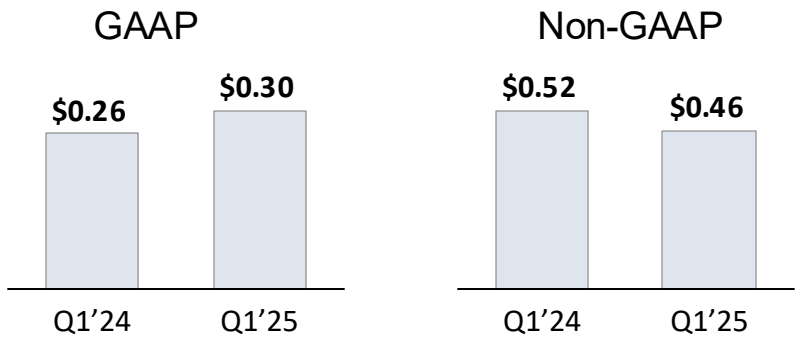
Revenue



Non-GAAP Gross Profit

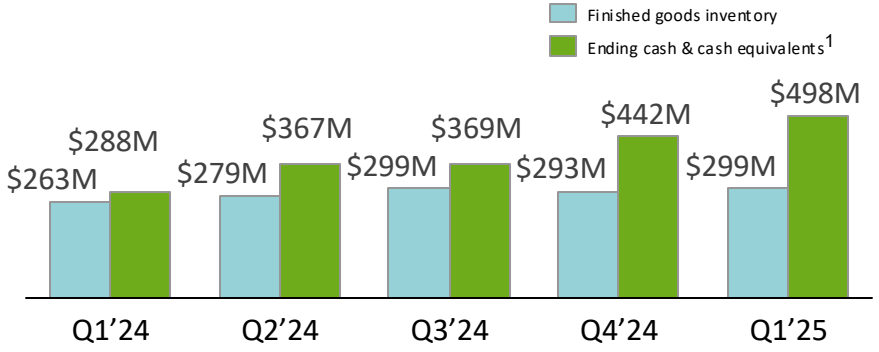


EPS



See slide 19 for reconciliation between GAAP and Non-GAAP Gross Profit and EPS

Balance Sheet



[1] *Including interest bearing time deposits.*

Q1 2025 Revenue Detail

Cleaning

- $129.6M revenue (up 18.4%)
- Revenue mix 75% vs. 72%

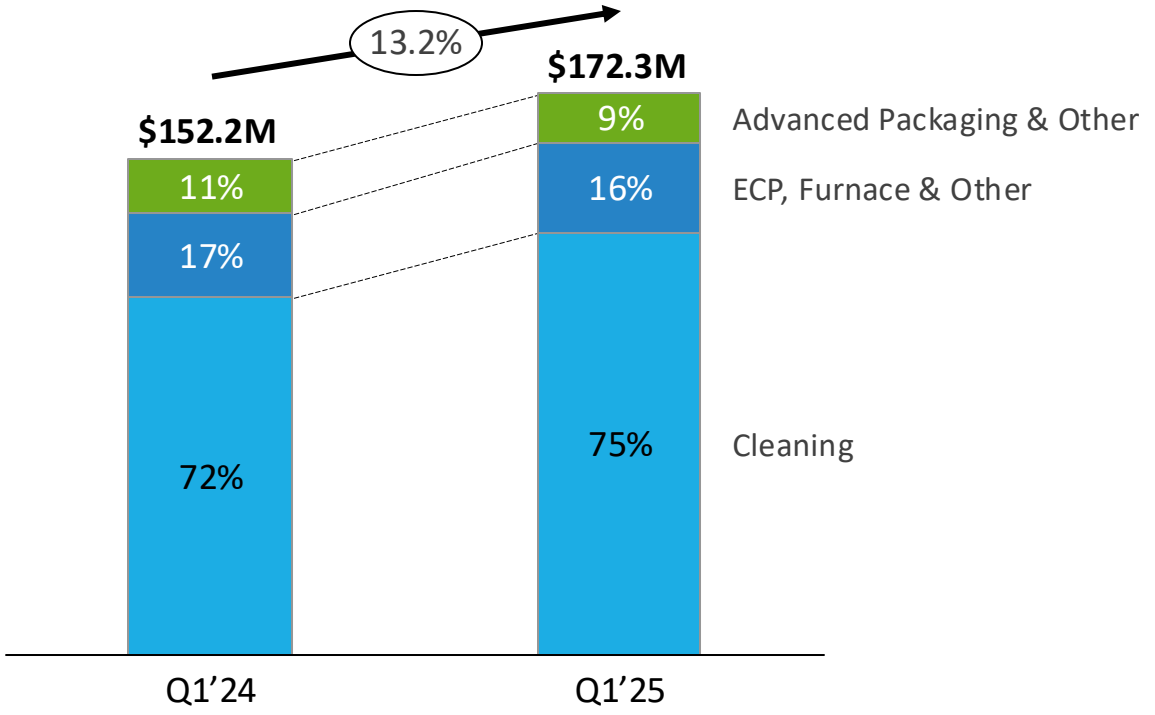
ECP, Furnace & Other

- $27.6M revenue (up 7.1%)
- Revenue mix 16% vs. 17%

Advanced Packaging & Other

- $15.1M revenue (down 10.5%)
- Revenue mix 9% vs. 11%

Revenue by Product: Q1'25 vs Q1'24



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Wafer Cleaning

Flagship Cleaning Tools

SAPS

Megasonic Cleaning for Flat and Patterned Wafer Surfaces

- High efficiency with enhanced process flexibility
- Uniform and consistent results
- Customizable specifications

TEBO

Bubble Oscillation Cleaning for Patterned Wafers at Advanced Process Nodes

- Highly effective, damage-free solution for small and fragile features
- Multi-parameter bubble cavitation control

Ultra – C Tahoe

Hybrid Wafer Cleaning With Significant Cost & Environmental Benefits

- Environmentally friendly - reduces 75% sulfuric acid use vs. conventional tools
- High cleaning performance at low cost

Bevel Etch

Bevel Etching process for 3D NAND , DRAM and advanced logic processes

- Accurate and efficient wafer center alignment for precise bevel etch
- Variable wafer bevel etch/cut accuracy of 1-7mm and good uniformity

Single Wafer High Temp SPM

Single High Temp SPM Cleaning for metal removal and PR Strip at advance node

- Photoresist stripping after high-dose energy implant, wet stripping without using a dry ash process, and special metal film removal processes at advance node

Semi Critical Cleaning Tools

Auto Bench

Batch Wafer Cleaning for a full range of wet technologies across multiple nodes

- ULD advance drying technology addresses challenges in high-aspect-ratio structures
- MCR module delivers high cleaning performance and eliminates cross-contamination

Backside

Backside Clean Tool for wafer device side none contact process

- *Good particle performance and etch uniformity control*
- High throughput above 300 wph

Scrubber

Scrubber Cleaning for efficient front- and backside wet-cleaning applications

- *High throughput,* small footprint *and low cost*
- Small particle removal

Advanced Processes

High Temp IPA Dry (UTD)

High Temp IPA Drying for advanced logic processes

- Damage-free drying process for small structures and high-aspect-ratio structures
- Associated with customizable cleaning method for optimal performance

Other Tools

Additional tools available for advanced processing…

ACM Research's integrated circuit wet cleaning equipment product line covers over 90% of the cleaning process steps

Electroplating

Model	Ultra ECP map	Ultra ECP 3D	Ultra ECP ap	Ultra ECP ap (Cu-Ni-SnAg-Au)	Ultra ECP GIII	Ultra ECP ap-p
Application	Dual-damascene plating (90nm-28nm)	3D/2.5D high aspect ratio TSV	Pillar bump, Solder bump, RDL, Conformal TSV	High-density Fan Out Fine Pitch RDL	RF product 150mm wafer-level packaging	Pillar bump, RDL 510mmx515mm or 600mmx600mm panels
Module	16 chambers	10/12 chambers	24/28 chambers	28 chambers	8/9 chambers	8/20 chambers
	Cu Post-cleaning Annealing	Cu Post-cleaning Pre-wetting	Cu+Ni+SnAg Pre-wetting Post-cleaning	Cu/Ni/SnAg/Au Pre-wetting Post-cleaning Cleaning after Au plating	Cu+Sn/Ag+Ni Au Pre-wetting Post-cleaning	Cu/Ni/SnAg/Au Pre-wetting Post-cleaning Buffer flip, aligner & CCD
Special Features	Impulse local plating	Impulse local plating	Second anode technology	Second anode technology Impulse Au plating	Second anode technology	Horizontal and multi zone process to control corner & edge uniformity

Vertical Furnace

Mask | **Ox /Anneal** | Photo | Exposure | Develop | Etch | Ion Implantation | **CVD** | **ALD** | Metal Wire

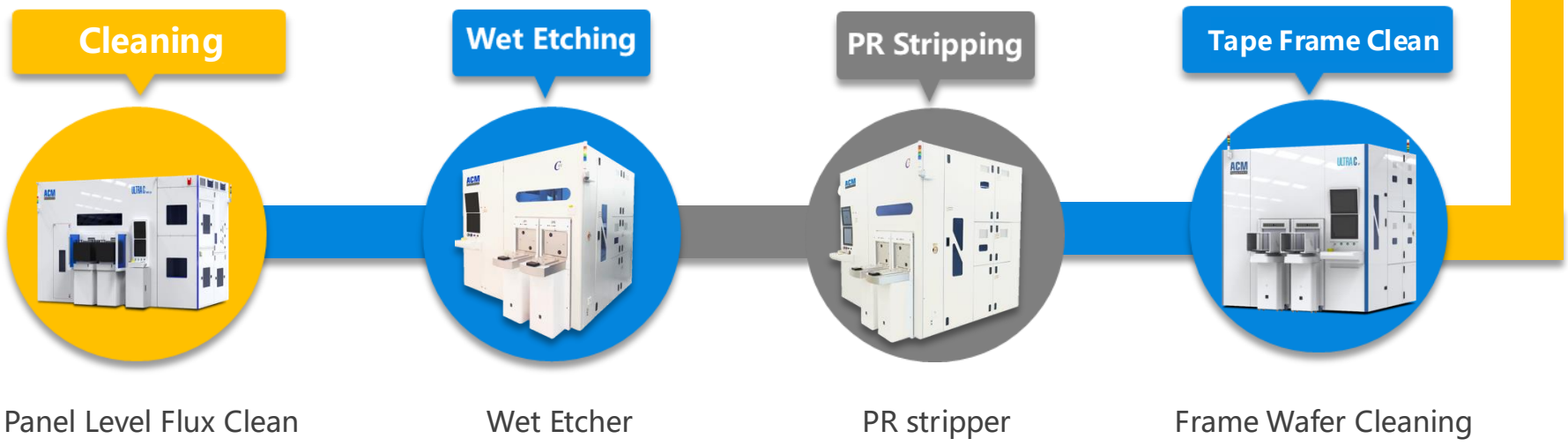
Furnace Tube Classification	Film Type	Process	Temperature Range	Existing ACM Research Product	In Development
Normal Pressure Chemical Vapor Deposition Furnace	Oxidation	Wet oxygen/dry oxygen/nitrogen annealing	700~1200°C	★	
	Annealing				
	Back-end thermal treatment	Copper process thermal treatment	100~450°C		
		Coating and curing			
Low Pressure Chemical Vapor Deposition Furnace	Alloy	Hydrogen/nitrogen thermal treatment	100~450°C	★	
	Silicon deposition	Poly-crystal silicon doping	500~620°C	★	
		Advanced poly-crystal deposition			☆
		No poly-crystal silicon doping		★	
	Silicon oxide	High-temperature silicon oxide	650~800°C	★	
	Silicon nitride	Silicon nitride deposition		★	
Atomic Layer Deposition Furnace	Silicon oxide	Silicon oxide deposition	500~650°C	★	
	Silicon nitride	Silicon nitride deposition			

W*L*H= 1.10m*3.70m*4.05m

Advanced Packaging

Comprehensive solution for wafer and panel-level advanced packaging wet process

- Make use of ACM Research's technology advantages to expand application in Asia, especially advanced packaging manufacturers in China
- Dedicated to providing diversified and customer equipment meeting customer's designing requirements
- The products include scrubbers, coaters, developers, photoresist strippers, wet etchers, ECPs, and stress-free polishers



Track and PECVD

Model	Model	Technical Features	Offline/Inline	Chamber Temperature	Bake Range	Development Phase
 **Ultra Lith™ Track Coater/Developer** ——	ArF Model	✓ Support 300mm wafers ✓ Four 12-inch load ports ✓ 8 coating chambers ✓ 8 developing chambers	Inline	23°C ±0.1°C	50~250°C	Industry Evaluation
	KrF Model			——	——	In Development
——	I-line Model			——	——	In Development

Model	Film Category	Film Type	RF Frequency	RF Control	Heater/CH	Development Phase
 **Ultra Pmax™ PECVD**	SiH4 Base	SiO2; Si3N4; SiON	HF: 13.56MHz HF: 27.12MHz LF: 400KHz	Separate control	3	Industry Evaluation
	TEOS Base	TEOS Layer	HF: 13.56MHz HF: 27.12MHz LF: 400KHz	Separate control	3	
	Chemical Base	SiCN/APF Layer	HF: 13.56MHz HF: 27.12MHz LF: 400KHz	Separate control	3	

Q1 2025 GAAP TO NON-GAAP RECONCILIATION

	Three Months Ended March 31,							
	2025				2024			
	Actual (GAAP)	SBC	Other non-operating adjustments	Adjusted (Non-GAAP)	Actual (GAAP)	SBC	Other non-operating adjustments	Adjusted (Non-GAAP)
	(In thousands)							
Revenue	$ 172,347	$ -	$ -	$ 172,347	$ 152,191	$ -	$ -	$ 152,191
Cost of revenue	(89,797)	(529)	-	(89,268)	(73,070)	(781)	-	(72,289)
Gross profit	82,550	(529)	-	83,079	79,121	(781)	-	79,902
Gross margin	*47.9%*	*0.3%*	-	*48.2%*	*52.0%*	*0.5%*	-	*52.5%*
Operating expenses:								
Sales and marketing	(16,343)	(2,157)	-	(14,186)	(14,173)	(3,027)	-	(11,146)
Research and development	(27,503)	(2,775)	-	(24,728)	(23,918)	(4,503)	-	(19,415)
General and administrative	(12,927)	(4,356)	-	(8,571)	(15,798)	(6,258)	-	(9,540)
Total operating expenses	(56,773)	(9,288)	-	(47,485)	(53,889)	(13,788)	-	(40,101)
Income (loss) from operations	$ 25,777	$ (9,817)	$ -	$ 35,594	$ 25,232	$ (14,569)	$ -	$ 39,801
Unrealized loss on short-term investments	(1,082)	-	(1,082)	-	(2,595)	-	(2,595)	-
Net income (loss) attributable to ACM Research, Inc.	**$ 20,380**	**$ (9,817)**	**$ (1,082)**	**$ 31,279**	**$ 17,433**	**$ (14,569)**	**$ (2,595)**	**$ 34,597**
Basic EPS	$ 0.32			$ 0.49	$ 0.28			$ 0.56
Diluted EPS	$ 0.30			$ 0.46	$ 0.26			$ 0.52