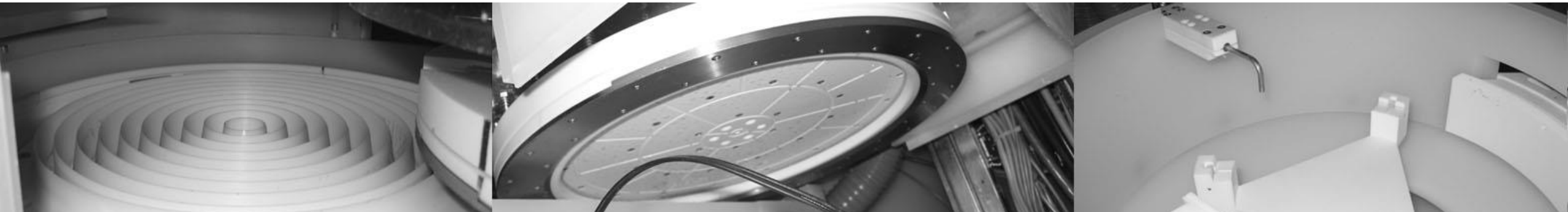




Supplemental Investor Presentation Earnings Release – Fourth Quarter and Fiscal Year 2021

February 25, 2022



Forward-Looking Statements. Information presented below under “FY21 and Q4’2021 Highlights” with respect to the demand for ACM’s tools, target growth, expectations regarding changes in ACM’s addressable market, target 2022 run rate, under “Internal Longer-term Working Target of \$1B” with respect to revenue targets, under “Innovative Product Introductions Expanding SAM” with respect to serviceable available market expectations, and under “2022 Outlook” with respect to revenue projected to be generated in 2022 are forward-looking statements for purposes of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Actual results may vary significantly from ACM Research’s expectations based on a number of risks and uncertainties, including but not limited to the following, any of which could be exacerbated even further by the continuing COVID-19 outbreak in China and globally: anticipated customer orders or identified market opportunities may not grow or develop as anticipated; customer orders already received may be postponed or canceled; suppliers may not be able to meet ACM Research’s demands on a timely basis; volatile global economic, market, industry and other conditions could result in sharply lower demand for products containing semiconductors and for ACM Research’s products and in disruption of capital and credit markets; ACM Research’s failure to successfully manage its operations; and trade regulations, currency fluctuations, political instability and war may materially adversely affect ACM Research due to its substantial non-U.S. customer and supplier base and its substantial non-U.S. manufacturing operations. ACM Research cannot guarantee any future results, levels of activity, performance or achievements. The industry in which ACM Research operates is subject to a high degree of uncertainty and risk due to variety of factors, including those described in ACM Research’s public filings with the Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended December 31, 2021 and subsequent Quarterly Reports on Form 10-Q for a more complete discussion of these factors and other risks, particularly under the heading “Risk Factors.” ACM Research expressly disclaims any obligation to update forward-looking statements after the date of this presentation.

Market Data. Information presented below under “Investment Highlights” concerning ACM Research’s total addressable market presents a forecast based on information provided by Gartner, Inc. in its report “Forecast: Semiconductor Wafer Fab Manufacturing Equipment (Including Wafer-Level Packaging), Worldwide, 4Q21 Update” (December 2021). 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 Research 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 Research operates is subject to a high degree of uncertainty and risk due to variety of factors, including those described in ACM Research’s public filings with the Securities and Exchange Commission, as described above.

Note Regarding Presentation of Non-GAAP Financial Measures. Information presented below under “FY21 and Q4’2021 Highlights”, “2021 Financial Results”, and “Q4 2021 Financial Results” includes certain “non-GAAP financial measures” as defined in Regulation G under the Securities Exchange Act of 1934, including non-GAAP gross profit, non-GAAP operating income, non-GAAP basic and diluted EPS, non-GAAP gross margin, non-GAAP operating expenses, non-GAAP operating income attributable to ACM Research, Inc. 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 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 under ACM Research’s fourth quarter 2021 earnings release dated February 24, 2021, which (a) has been furnished to the Securities and Exchange Commission and can be viewed at https://www.sec.gov/Archives/edgar/data/0001680062/000114036122006721/brhc10034419_ex99-01.htm and (b) has been posted at, and can be downloaded from, the “Investors” content area at ACM Research’s website, <https://ir.acmrcsh.com/news-releases/news-release-details/acm-research-reports-fourth-quarter-and-fiscal-year-2021-results>.

FY21 and Q4'21 Highlights

2021 Financial Highlights

- \$260 million revenue (up 66%); \$372 million shipments (up 104%)
- \$372 million total shipments vs. \$182 million in 2020
- \$114.9 million GAAP Gross Profit (44.2% of revenue)
- \$115.3 million non-GAAP Gross Profit (44.4% of revenue)
- \$38.7 million GAAP Operating Income (14.9% of revenue)
- \$43.8 million non-GAAP Operating Income (16.9% of revenue)
- \$563 million of cash as of year-end

Significant Strategic Highlights

- ACM Shanghai's STAR Market IPO provides a foundation to accelerate mission to become major supplier
- Demo tools at 4 significant new customers, including major U.S. semi manufacturer
- Robust growth from new products diversifies revenue mix and expands TAM
- Current products address \$8B TAM; Expected to double in 2022 with two new products
- Strong macro tailwinds from multi-year capacity expansion to secure chip supply
- China market still developing, ACM gaining share and adding new products
- Exited 2021 near \$500M run-rate capacity; Targeting \$625M capacity by year-end 2022

2021 Revenue Details

Cleaning

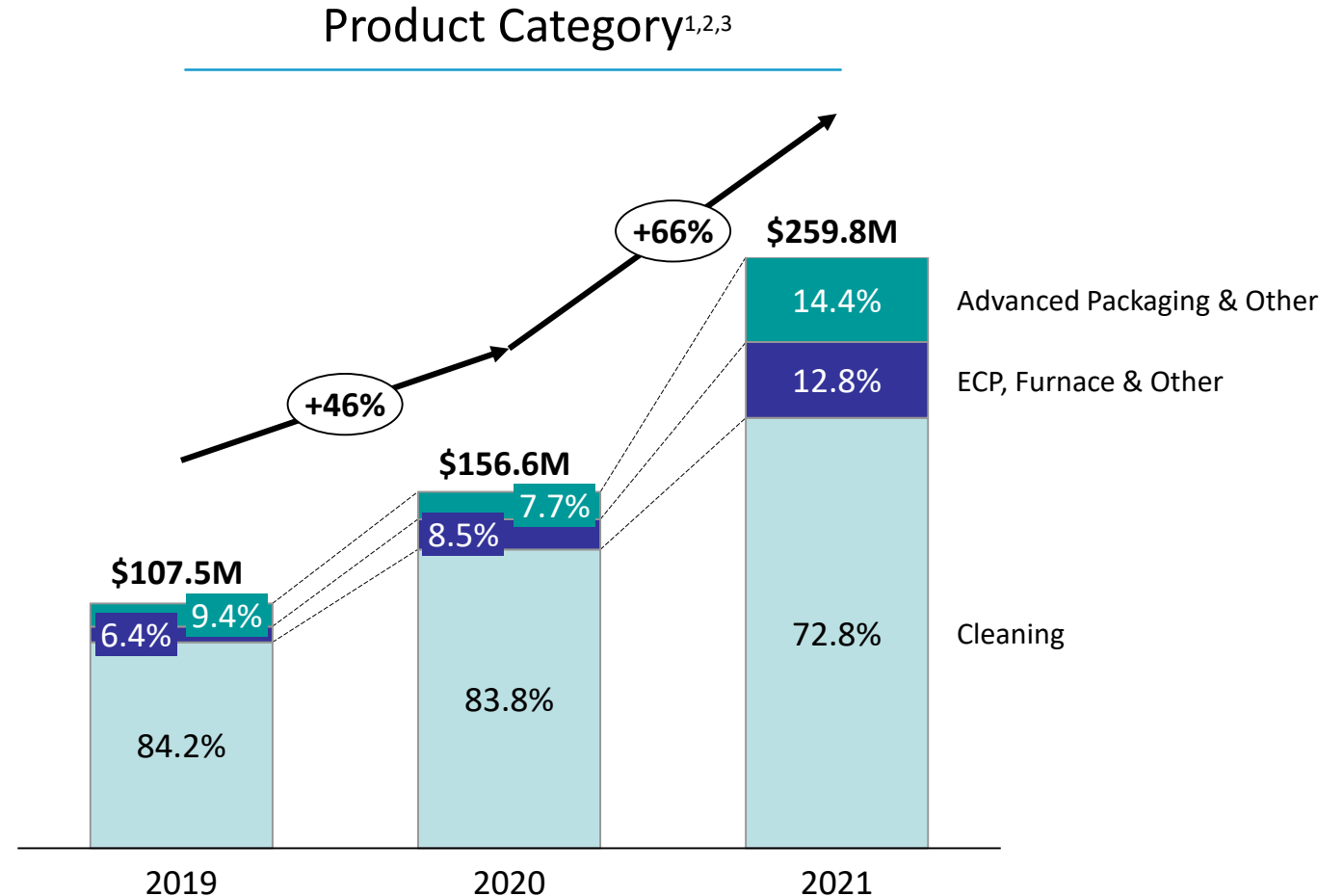
- \$189.2M revenue (up 44%)
- Revenue mix 73% vs. 84% last year

ECP, Furnace & Other

- \$33.2M revenue (up 149%)
- Revenue mix 13% vs. 9% last year

Advanced Packaging & Other

- \$37.3M revenue (up 210%)
- Revenue mix 14% vs. 8% last year



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



- Major new entrant into NAND flash and DRAM industry
- Expanding capacity with construction of \$24B production facility in Wuhan⁽¹⁾
- Proprietary Xtacking architecture used to produce 3D NAND products⁽²⁾
- ACM 2021 Revenue %: 21% (primarily 3D NAND)



- Leading advanced foundry in China
- Manages first fully automated 300mm wafer production line in mainland China⁽³⁾
- Production capacity for 35,000 wafers per month⁽³⁾
- ACM 2021 Revenue %: 28% (primarily Foundry / Logic)



- Global market leader in memory (DRAM & NAND) semiconductor products
- ACM's first major customer
- Expected to spend \$107B in the coming years to build four new memory chip plants⁽⁴⁾
- ACM 2021 Revenue %: <10% (primarily DRAM)

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⁽⁶⁾
- Global customer base with exposure to the U.S., Western Europe and Asia



- Mainland China's largest foundry
- Tier-one customers include Qualcomm, Broadcom and Texas Instruments
- Six strategically located fabs in China and Western Europe
- Building \$10B fab to produce 14nm, 10nm and 7nm chips⁽⁵⁾
- ACM 2021 Revenue %: <10%



- New China-based entrant to DRAM industry
- Ordered 12-Chamber SAPS-V tool for evaluation
- ACM delivered first tool in Q4 2019

Five Tier 2 Analog/Power IC Manufacturing Customers

- Hangzhou Silan Microelectronics and 4 unnamed 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.
- ACM delivered first tools in 2H' 2020.



- Leading OSAT provider – #7 globally⁽⁷⁾ and top 3 in China⁽⁸⁾
- Fastest growing OSAT provider globally with ~43% year-over-year revenue growth⁽⁷⁾
- Six production facilities serving more than half of the top ten global semiconductor manufacturers⁽⁸⁾

(1) Source: Nikkei Asian Review. (2) Source: YMTC Press Release. (3) Source: HLMC Press Release. (4) Source: Reuters. (5) Source: AnandTech. (6) Source: JCAP Company Profile. (7) Source: CY21 Analyst Estimates. (8) Source: TFME website.

Shanghai Manufacturing Facilities

Factory #1 (Shanghai HQ)



- Original ACM factory
- 36,000 sq. ft. facility
- 8,000 sq. ft. of class 10,000 clean room space for product assembly and testing
- 800 sq. ft. of class 1 clean room space for product demonstration purposes
- Co-located with ACM Shanghai Headquarters and China R&D Center

Factory #2



- Located in Chuansha area of Pudong district, approximately 11 miles from ACM Shanghai's Zhangjiang area HQ
- Opened first building in September 2018 and added 2nd floor in 2020; fully operational with 100,000 sq. ft. of available floor space
- Leased second building in Q1 2021 to expand Chuansha facility to 200,000 sq. ft. of available floor space for production

Lingang Under Construction

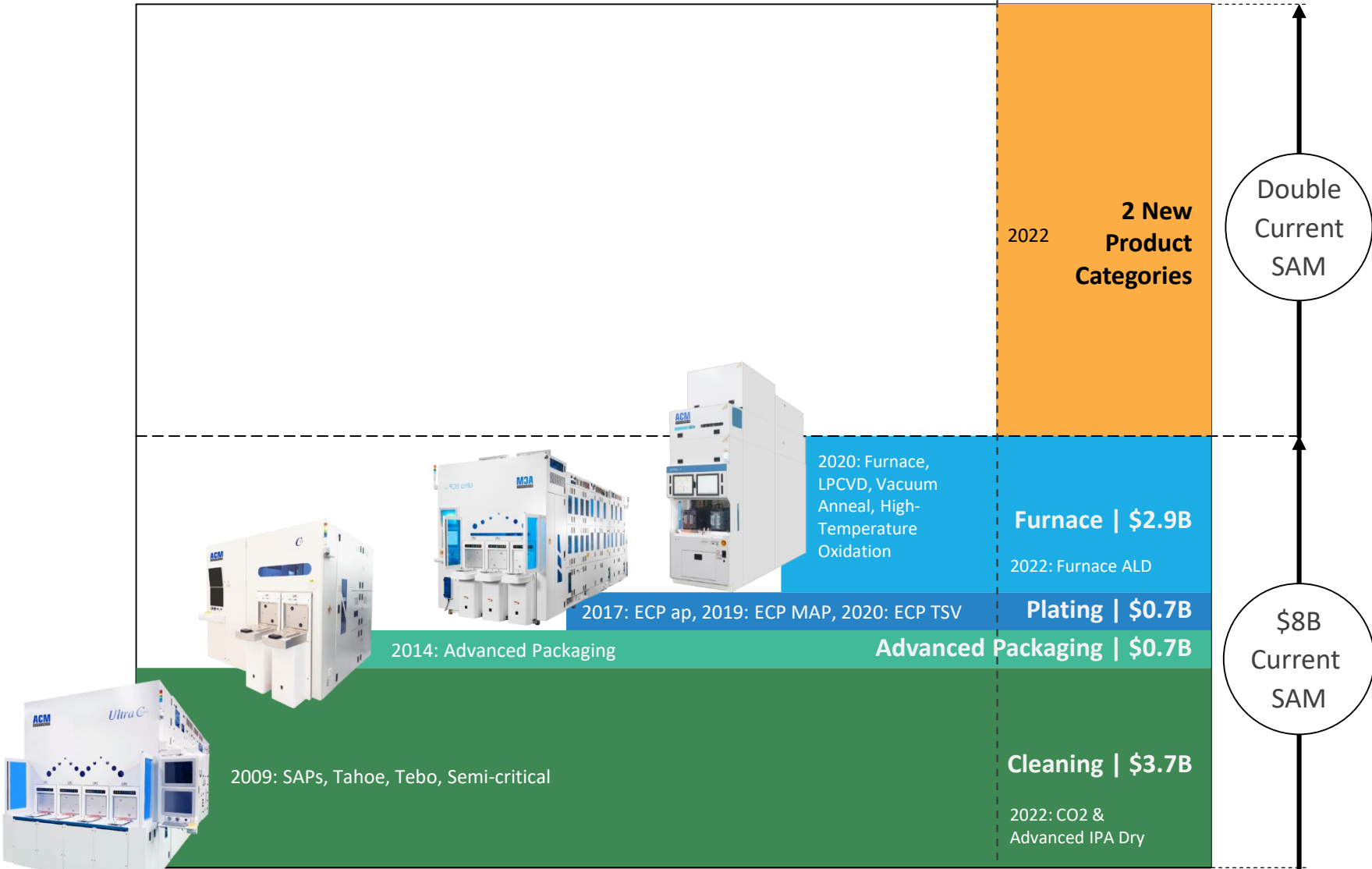


- Broke ground on the new R&D and production facilities in Lingang region of Shanghai in July 2020
- Approximately 30 miles from ACM Shanghai's HQ in Zhangjiang
- 1 million square feet
- Expect initial production activities to commence in mid-2023

Innovative Product Introductions Expanding SAM¹

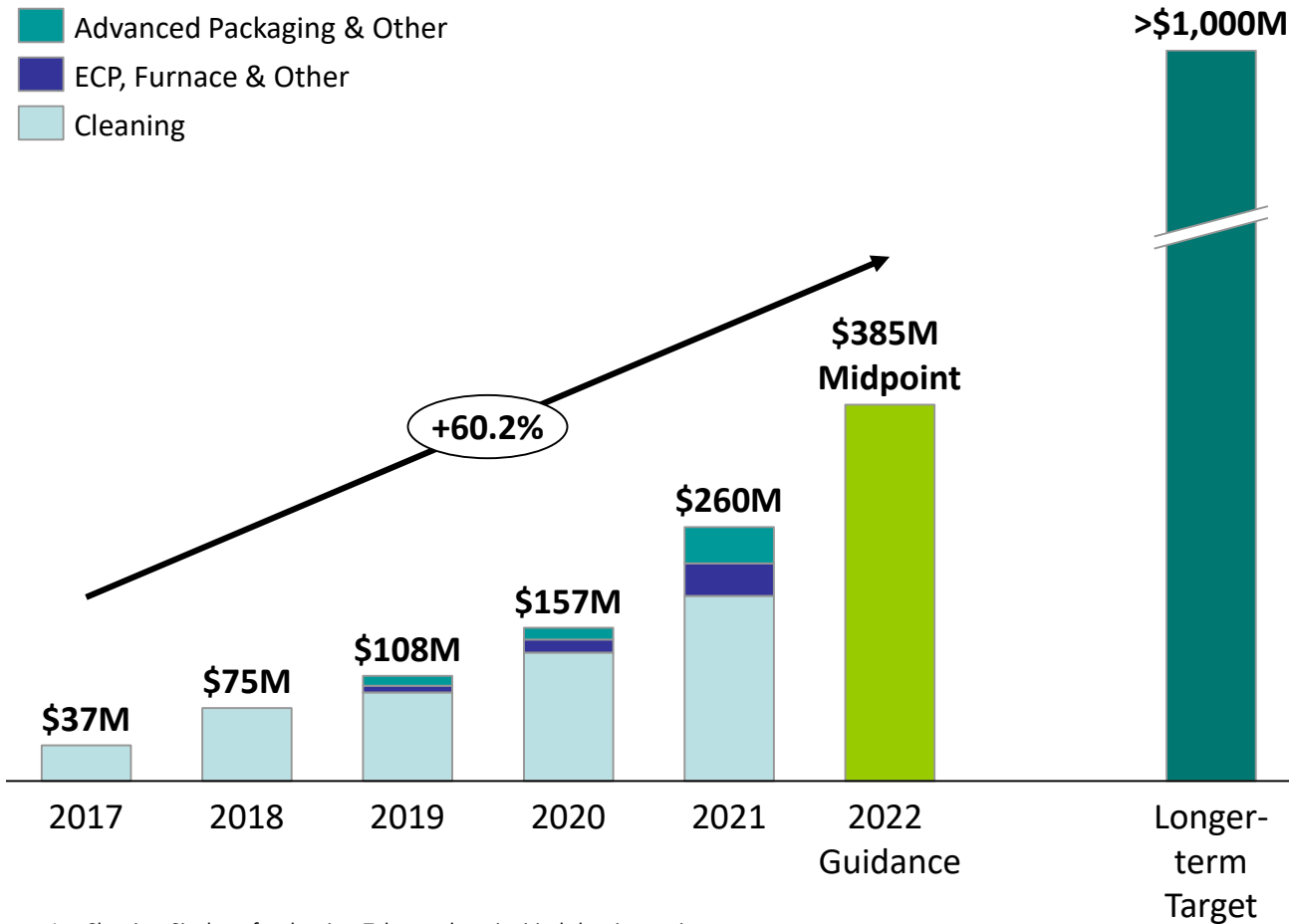
Estimated SAM of \$8 billion addressed by ACM's current and near-term product portfolio

ACM targets to double its SAM with the introduction of two major new product categories in 2022



¹Source: Gartner - "Forecast: Semiconductor Wafer Fab Manufacturing Equipment (Including Wafer-Level Packaging), World-wide, Q4'21 Update" and Company Estimates

Internal Longer-term Working Target of \$1B



Longer-term Target Assumptions ¹			
		ACM	
Mainland China	SAM	Share	Revenue
Cleaning	\$0.9B	50%	\$0.5B
ECP	\$0.3B	50%	\$0.2B
Furnace	\$0.8B	30%	\$0.2B
Ad. Packaging			\$0.1B
New Products	>\$2B		Upside
			\$1B
RoW			
Cleaning	\$3.1B		Upside
ECP	\$1.2B		Upside
Furnace	\$2.6B		Upside
Ad. Packaging			Upside
New Products	>\$7B		Upside
			Upside
ACM China + RoW Revenue			At least \$1B

¹Source: Gartner - "Forecast: Semiconductor Wafer Fab Manufacturing Equipment (Including Wafer-Level Packaging), World-wide, Q4'21 Update" and Company Estimates

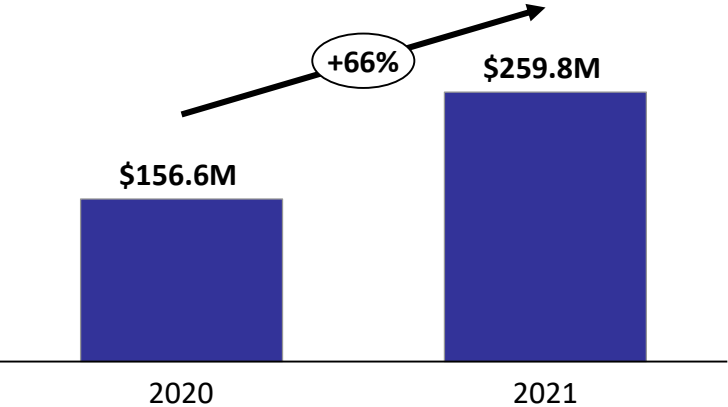
1. Cleaning: Single wafer cleaning, Tahoe and semi-critical cleaning equipment
2. ECP & Furnace & Other: ECP (front-end and packaging), furnace and other technologies
3. Advanced Packaging & Other: Advanced Packaging (excluding ECP), services & spares

2022 Outlook

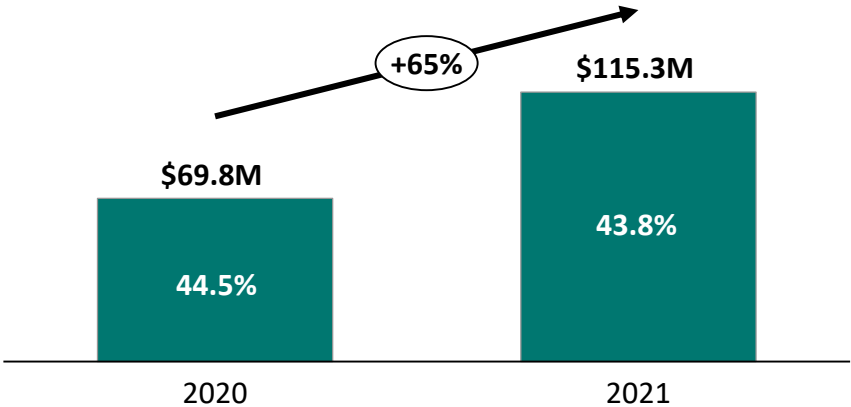
- **Estimated 2022 revenue guidance of \$365 to \$405 million**
 - Projected 48% year-over-year growth at the mid-point
- **Outlook assumes:**
 - Stability with respect to global COVID-19 pandemic
 - Stability in U.S.-China trade policies
 - Various spending scenarios for production ramp of key customers
 - Management of supply chain
 - Range of outcomes for timing and magnitude of customer acceptances for first tools

2021 Financial Results

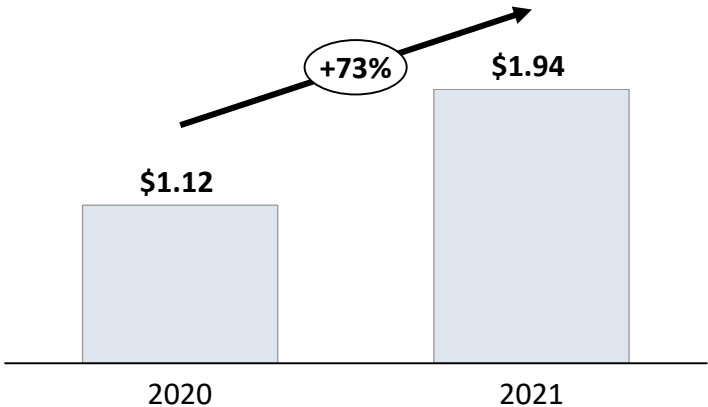
Revenue



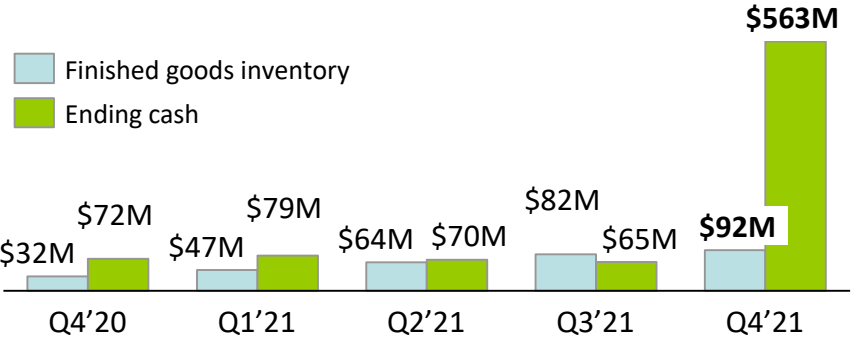
Non-GAAP Gross Profit



Non-GAAP EPS



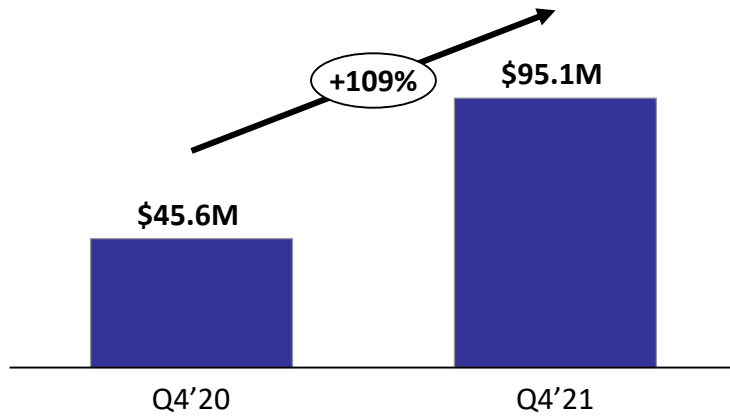
Balance Sheet Data¹



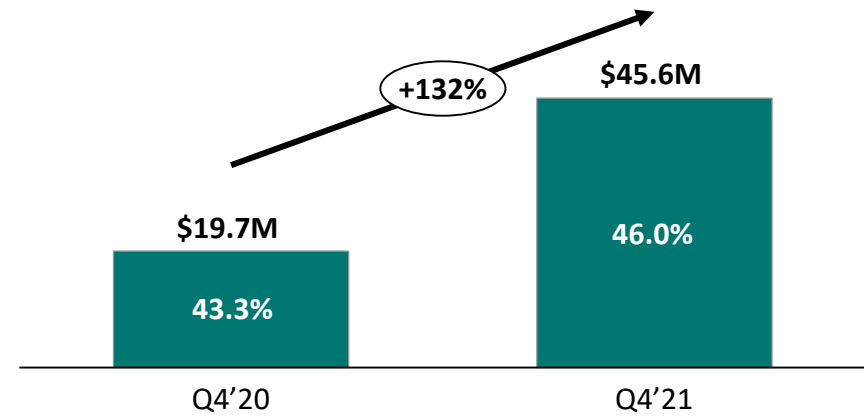
¹ Finished goods inventory represents 'demo-to-sales' product which have been delivered to customers for evaluation. These products are carried at cost until ownership is transferred.

Q4 2021 Financial Results

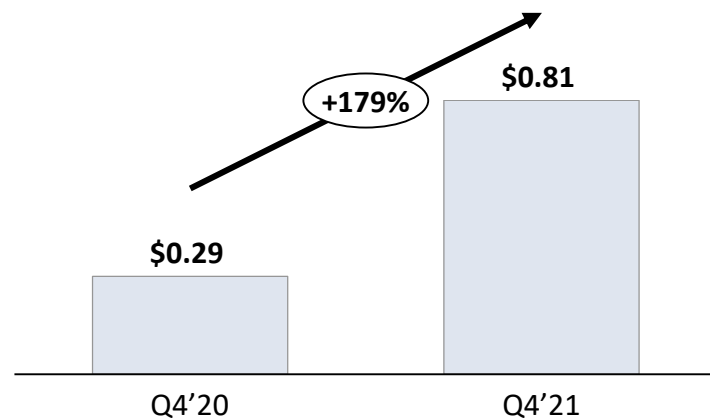
Revenue



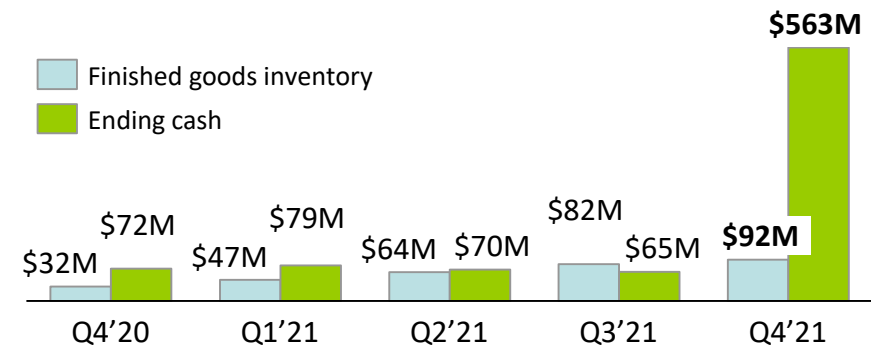
Non-GAAP Gross Profit



Non-GAAP EPS



Balance Sheet Data¹



¹ Finished goods inventory represents 'demo-to-sales' product which have been delivered to customers for evaluation. These products are carried at cost until ownership is transferred.

2021 GAAP to Non-GAAP Reconciliation (1)

	Year Ended December 31,							
	2021				2020			
	Actual (GAAP)	SBC	Other non- operating adjustments	Adjusted (Non- GAAP)	Actual (GAAP)	SBC	Other non- operating adjustments	Adjusted (Non- GAAP)
	<i>(In thousands, except EPS)</i>							
Revenue	\$ 259,751	\$ -	\$ -	\$ 259,751	\$ 156,624	\$ -	\$ -	\$ 156,624
Cost of revenue	(144,895)	(397)	-	(144,498)	(87,025)	(175)	-	(86,850)
Gross profit	114,856	(397)	-	115,253	69,599	(175)	-	69,774
Operating expenses:								
Sales and marketing	(26,733)	(1,802)	-	(24,931)	(16,773)	(1,199)	-	(15,574)
Research and development	(34,207)	(1,115)	-	(33,092)	(19,119)	(763)	-	(18,356)
General and administrative	(15,214)	(1,803)	-	(13,411)	(12,215)	(3,491)	-	(8,724)
Income from operations	\$ 38,702	\$ (5,117)	\$ -	\$ 43,819	\$ 21,492	\$ (5,628)	\$ -	\$ 27,120
Change in fair value of financial liability	-	-	-	-	(11,964)	-	(11,964)	-
Unrealized gain on trading securities	607	-	607	-	12,574	-	12,574	-
Net income attributable to ACM Research, Inc.	\$ 37,757	\$ (5,117)	\$ 607	\$ 42,267	\$ 18,780	\$ (5,628)	\$ 610	\$ 23,798
Basic EPS	\$ 1.96			\$ 2.20	\$ 1.03			\$ 1.31
Diluted EPS	\$ 1.73			\$ 1.94	\$ 0.89			\$ 1.12

Q4 2021 GAAP to Non-GAAP Reconciliation (2)

	Three Months Ended December 31,							
	2021				2020			
	Actual (GAAP)	SBC	Other non- operating adjustments	Adjusted (Non- GAAP)	Actual (GAAP)	SBC	Other non- operating adjustments	Adjusted (Non- GAAP)
	<i>(In thousands, except EPS)</i>							
Revenue	\$ 95,142	\$ -	\$ -	\$ 95,142	\$ 45,562	\$ -	\$ -	\$ 45,562
Cost of revenue	(49,696)	(108)	-	(49,588)	(25,888)	(43)	-	(25,845)
Gross profit	45,446	(108)	-	45,554	19,674	(43)	-	19,717
Operating expenses:								
Sales and marketing	(9,273)	(402)	-	(8,871)	(5,249)	(704)	-	(4,545)
Research and development	(12,914)	(314)	-	(12,600)	(5,878)	(195)	-	(5,683)
General and administrative	(4,133)	(470)	-	(3,663)	(3,115)	(363)	-	(2,752)
Income from operations	\$ 19,126	\$ (1,294)	\$ -	\$ 20,420	\$ 5,432	\$ (1,305)	\$ -	\$ 6,737
Unrealized gain (loss) on trading securities	(1,210)	-	(1,210)	-	3,604	-	3,604	-
Net income attributable to ACM Research, Inc.	\$ 15,565	\$ (1,294)	\$ (1,210)	\$ 18,069	\$ 8,529	\$ (1,305)	\$ 3,604	\$ 6,230
Basic EPS	\$ 0.80			\$ 0.93	\$ 0.46			\$ 0.34
Diluted EPS	\$ 0.70			\$ 0.81	\$ 0.39			\$ 0.29