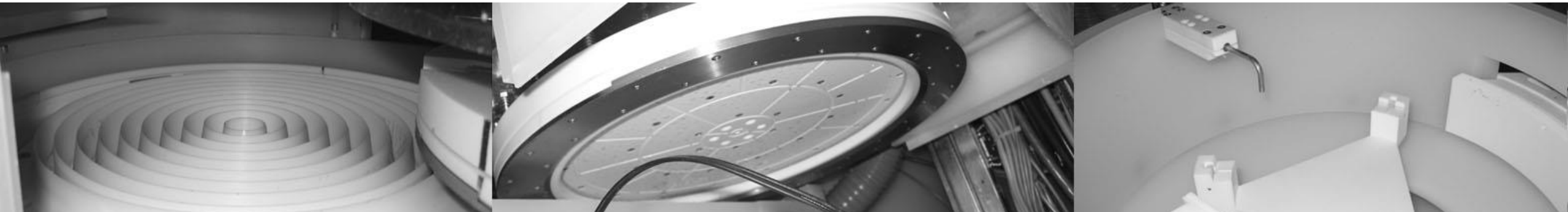




Supplemental Investor Presentation Earnings Release – First Quarter 2021

May 7, 2021



Forward-Looking Statements. Information presented below under “2021 Outlook” with respect to revenue projected to be generated in 2021 is a forward-looking statement 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, 2020, 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, 2Q19 Update” (July 2019). 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 “Q1 2021 Highlights”, and “Q1 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 margin, non-GAAP operating margin, non-GAAP EPS, non-GAAP gross profit and non-GAAP operating income. These supplemental measures exclude the impact of stock-based compensation, which ACM Research does not believe is indicative of its core operating results. A reconciliation of each non-GAAP financial measure to the most directly comparable GAAP financial measure is included in ACM Research’s first quarter 2021 earnings release dated May 6, 2021, which (a) has been furnished to the Securities and Exchange Commission and can be viewed at https://www.sec.gov/Archives/edgar/data/0001680062/000114036121016203/brhc10024224_ex99-01.htm and (b) has been posted at, and can be downloaded from, the “Investors” content area at ACM Research’s website, <http://ir.acmrcsh.com/news-releases/news-release-details/acm-research-reports-first-quarter-2021-results>.

Q1 2021 Highlights

- **Strong Q1 Results:**
 - \$43.7 million revenue, up 79.6% from Q1 2020; total shipments of \$74 million
 - 41.3% GAAP gross margin and 7.9% GAAP operating margin
 - 41.4% non-GAAP gross margin and 10.7% non-GAAP operating margin
 - Fully diluted GAAP EPS of \$0.25 vs. \$0.08 in Q1 2020
 - Fully diluted non-GAAP EPS of \$0.35 vs. \$0.11 in Q1 2020
 - Ended Q1 2021 with \$78.8 million of cash, and an additional \$27 million reflecting the value of SMIC investment
- **Key Operational and Strategic Progress:**
 - Broad-based revenue growth from current and new products and customers
 - Second building added to Chuansha factory in Pudong to scale production
 - Added resources to global sales team; actively engaged with prospective Tier-1 customers in North America and Taiwan
 - Broadened Ultra Fn furnace dry processing tool portfolio
 - Developed a proprietary high speed copper plating technology with patents pending
 - Remain confident in Shanghai subsidiary's STAR Market Listing

Q1 2021 Revenue Detail

Total Revenue By Product Category	Three Months Ended March 31,	
	2021	2020
Single Wafer Cleaning Tools (SAPS, TEBO, Tahoe) and Semi-Critical Cleaning Equipment	\$ 32,413	\$ 22,784
ECP (front-end and packaging), Furnace and Other Technologies	5,550	-
Advanced Packaging (excluding ECP), and Services & Spare Parts	5,769	1,564
	\$ 43,732	\$ 24,348

Total Revenue By Equipment Type (Front-end / Back-end)	Three Months Ended March 31,	
	2021	2020
Wet Cleaning and Other Front-end Processing Tools	\$ 31,900	\$ 22,784
Advanced Packaging, Other Back-end Processing Tools, and Services & Spare Parts	11,832	1,564
	\$ 43,732	\$ 24,348

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 2020 Revenue %: 27% (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 2020 Revenue %: 37% (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 2020 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 2020 Revenue %: 12%



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

Three New Analog/Power IC Manufacturing Customers

- Hangzhou Silan Microelectronics and 2 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 32% 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: Electronics Weekly. (8) Source: TFME website.

Shanghai Manufacturing Facilities – Existing and Planned

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

Facility #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

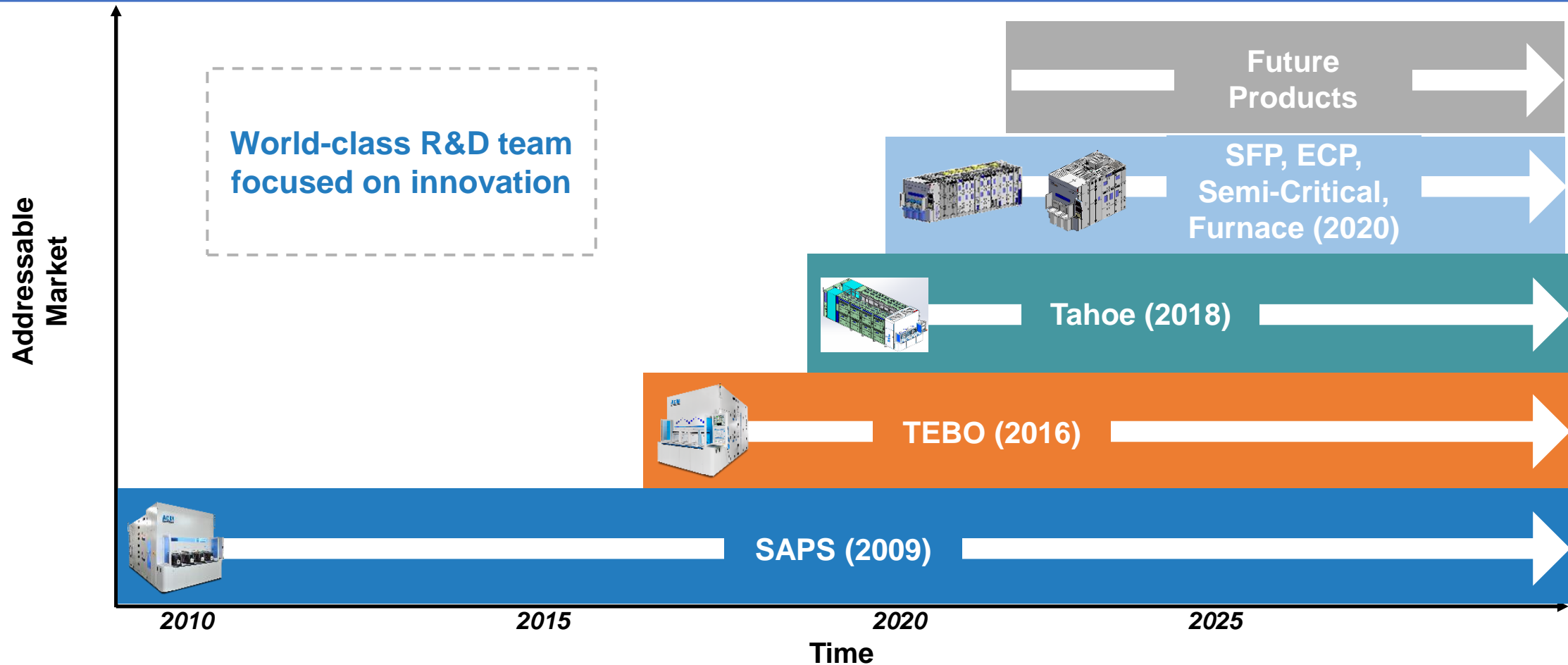
Lingang Under Construction



- 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 late 2022

Innovation and Product Introductions Expanding Addressable Market

ACM estimates that its current product offerings address a \$5 billion market opportunity



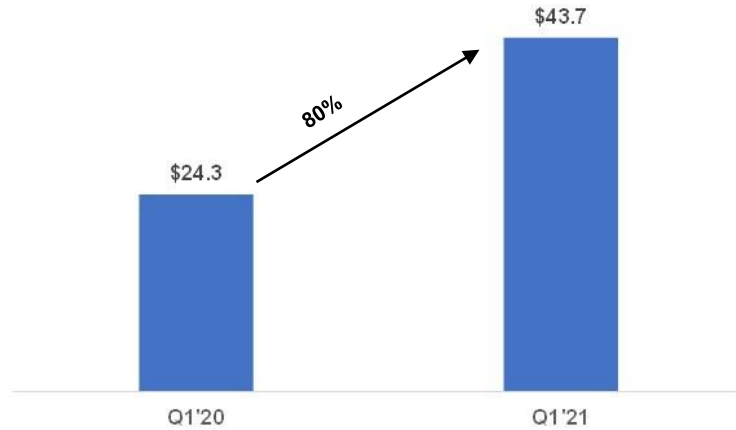
2021 Outlook

- **2021 revenue guidance of \$205 to \$230 million**
 - 39% year-over-year growth at the mid-point
- **Outlook assumes:**
 - Improvement with respect to global COVID-19 pandemic
 - U.S. – China trade policy stabilizes
 - Various spending scenarios for production ramp of key customers
 - Variance in the trajectory of the DRAM recovery
 - Range of outcomes for timing and magnitude of customer acceptances for first tools

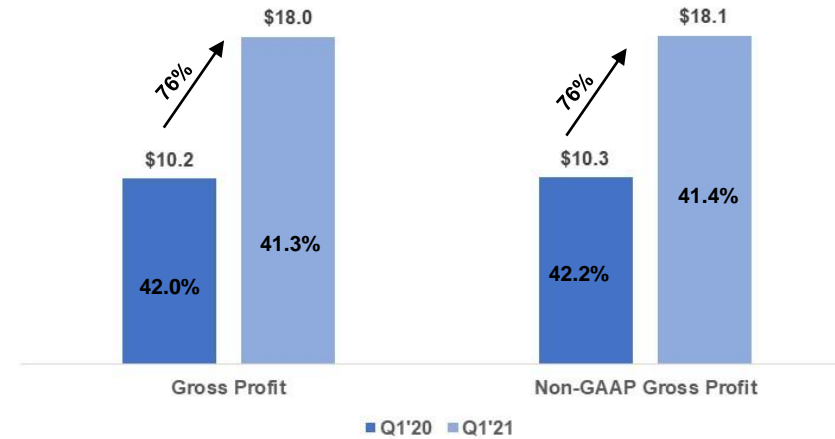
Q1 2021 Financial Results

\$ Millions

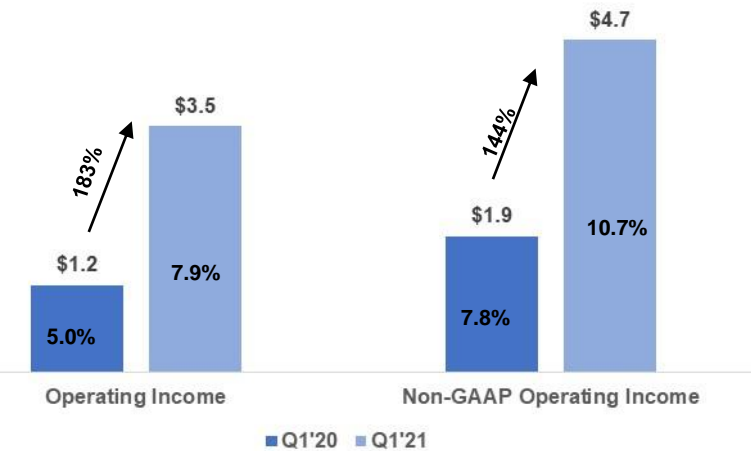
Revenue



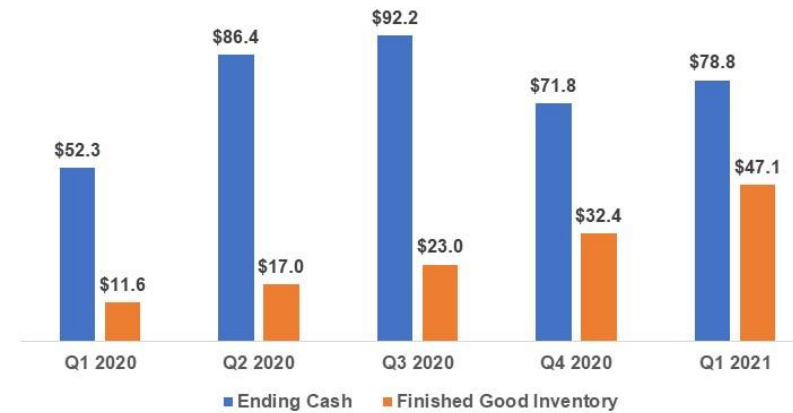
Gross Profit



Operating Income

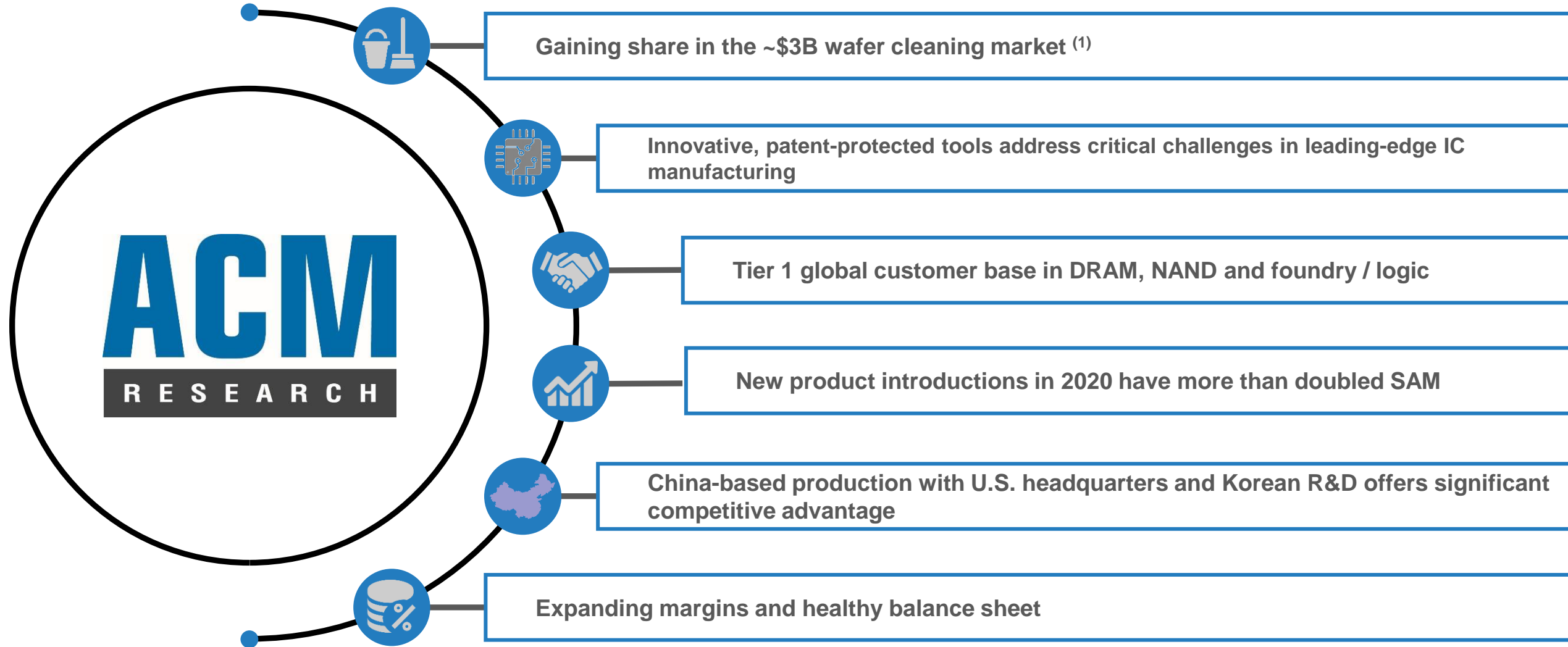


Balance Sheet Data*



* 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.

Investment Highlights



(1) Source: Gartner – “Forecast: Semiconductor Wafer Fab Manufacturing Equipment (Including Wafer-Level Packaging), Worldwide, 2Q19 Update” (July 2019). See “Market Data” on page 2.

GAAP to Non-GAAP Reconciliation (1)

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>3 months Ended 3/31/2021</u>	<u>3 months Ended 3/31/2020</u>
GAAP Income from Operations	\$6.5	\$17.8	\$21.5	\$3.5	\$1.2
Plus: Stock-based Compensation	\$3.4	\$3.6	\$5.6	\$1.2	\$0.7
Adjusted Income from Operations	\$9.8	\$21.4	\$27.1	\$4.7	\$1.9
GAAP Net Income (Loss)	\$6.6	\$19.5	\$21.7	\$5.5	\$1.7
Plus: Interest Expense (Income), Net	\$0.5	\$0.4	\$0.1	\$0.1	(\$0.2)
Plus: Income Tax Expense (Benefit)	\$0.8	(\$0.5)	(\$2.4)	(\$2.8)	\$0.3
Plus: Depreciation and Amortization	\$0.4	\$0.8	\$1.1	\$0.3	\$0.2
Plus: Stock-based Compensation	\$3.4	\$3.6	\$5.6	\$1.2	\$0.7
Plus: Change in Fair Value of Financial Liability	-	-	\$12.0	-	-
Plus: Unrealized Gain on Trade Securities	-	-	(\$12.6)	\$1.0	-
Adjusted EBITDA	\$11.6	\$23.7	\$25.5	\$5.4	\$2.7
GAAP Net Income	\$6.6	\$19.5	\$21.7	\$5.5	\$1.7
Plus: Change in Fair Value of Financial Liability	-	-	\$12.0	-	-
Plus: Stock-based Compensation	\$3.4	\$3.6	\$5.6	\$1.2	\$0.7
Plus: Unrealized Loss (Gain) on Trade Securities	-	-	(\$12.6)	\$1.0	-
Adjusted Net Income	\$9.9	\$23.0	\$26.7	\$7.7	\$2.4

GAAP to Non-GAAP Reconciliation (2)

	Three Months Ended March 31,						
	2021			2020			
	Actual (GAAP)	SBC	Other non- operating adjustments	Adjusted (Non-GAAP)	Actual (GAAP)	SBC	Adjusted (Non-GAAP)
	<i>(In thousands)</i>						
Revenue	\$ 43,732	\$ -	\$ -	\$ 43,732	\$ 24,348	\$ -	\$ 24,348
Cost of revenue	(25,687)	(71)	-	(25,616)	(14,120)	(45)	(14,075)
Gross profit	18,045	(71)	-	18,116	10,228	(45)	10,273
Gross margin %	41.3%	0.2%		41.4%	42.0%	0.2%	42.2%
Operating expenses:							
Sales and marketing	(5,308)	(505)	-	(4,803)	(3,005)	(94)	(2,911)
Research and development	(5,470)	(229)	-	(5,241)	(3,677)	(187)	(3,490)
General and administrative	(3,817)	(405)	-	(3,412)	(2,328)	(363)	(1,965)
Income from operations	\$ 3,450	\$ (1,210)	\$ -	\$ 4,660	\$ 1,218	\$ (689)	\$ 1,907
Operating margin %	7.9%	2.8%		10.7%	5.0%	2.8%	7.8%
Unrealized loss on trading securities	(1,047)	-	(1,047)	-	-	-	-
Net income attributable to ACM Research, Inc.	\$ 5,470	\$ (1,210)	\$ (1,047)	\$ 7,727	\$ 1,705	\$ (689)	\$ 2,394
Basic EPS	\$ 0.29			\$ 0.41	\$ 0.09		\$ 0.13
Diluted EPS	\$ 0.25			\$ 0.35	\$ 0.08		\$ 0.11