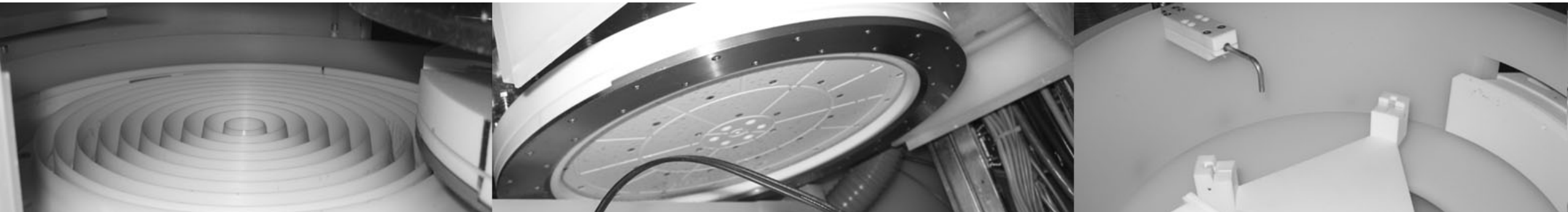




Supplemental Investor Presentation Earnings Release – Fourth Quarter and Fiscal Year 2020

February 26, 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, 2019 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, 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 “Q4 and 2020 Highlights”, “2020 Financial Results” and “Q4 2020 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 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 fourth quarter and 2020 earnings release dated February 25, 2021, which (a) has been filed with the Securities and Exchange Commission and can be viewed at https://www.sec.gov/Archives/edgar/data/1680062/000114036121006192/brhc10020916_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-fourth-quarter-and-fiscal-year-2020-results>.

Q4 and 2020 Highlights

- **2020 Financial Highlights:**
 - \$156.6 million revenue, up 45.7% from 2019
 - \$69.6 million GAAP gross profit (44.4% GAAP gross margin)
 - \$69.8 million non-GAAP gross profit (44.5% of revenue)
 - \$21.5 million GAAP operating income (13.7% GAAP operating margin)
 - \$27.1 million non-GAAP operating income (17.3% of revenue)
 - Ended 2020 with \$72 million of cash, and an additional \$28 million reflecting the value of strategic security investment
- **Total shipments of \$182 million in 2020 vs. \$115 million in 2019**
 - \$67 million in Q4 2020 vs. \$59 million in Q3 2020 and \$25 million in Q4 2019
- **Key Operational and Strategic Progress:**
 - Expanded customer base to include 2 analog and power IC manufacturers
 - Actively engaged with potential new customers in North America and Taiwan
 - Strengthened product portfolio
 - Opened second floor for production at second factory
 - Completed a deposit for employee housing at Lingang facility
 - Remain confident in Shanghai's STAR Market Listing

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

Two New Analog/Power IC Manufacturing Customers

- Hangzhou Silan Microelectronics and an unnamed China-based customer
- 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.

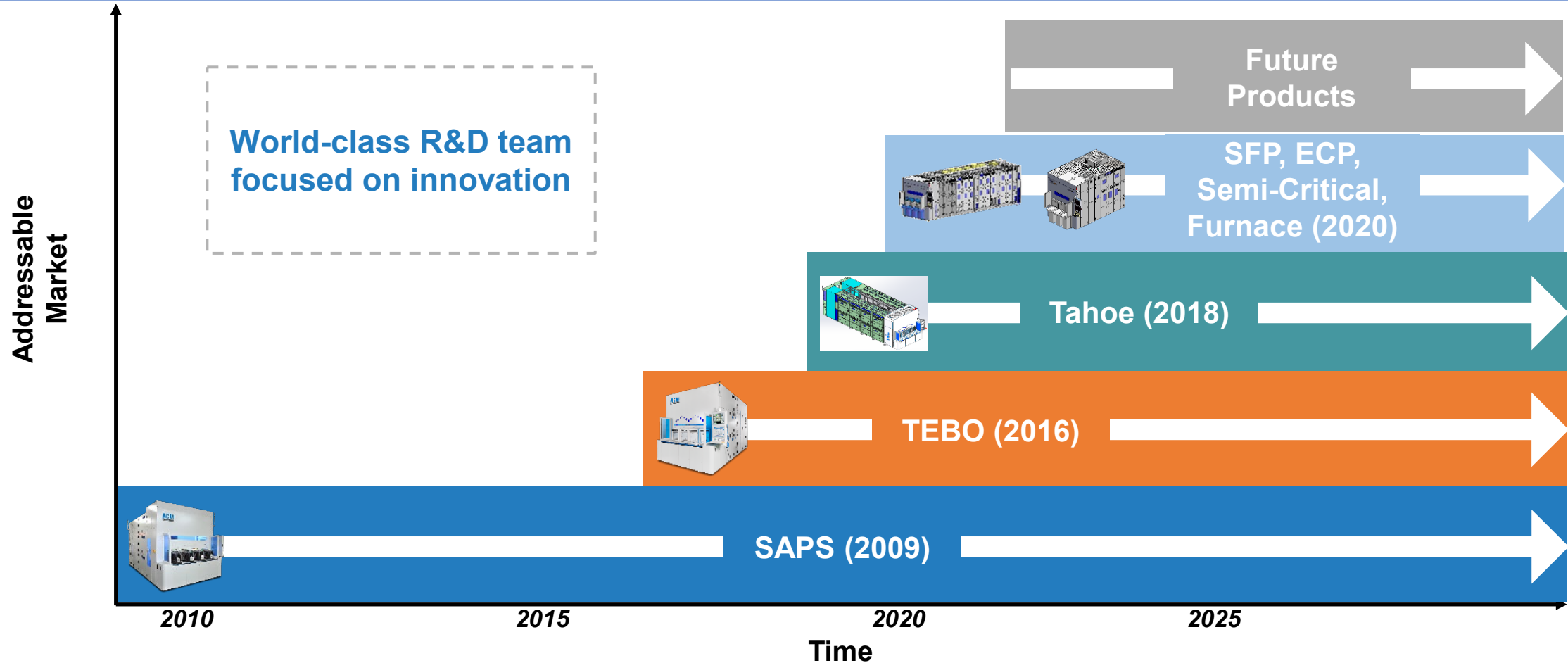


- Leading OSAT provider – #7 globally⁽⁷⁾ and top 3 in China⁽⁸⁾
- Fastest growing OSAT provider globally with 32% year-over-year revenue growth⁽⁷⁾
- Six production facilities serving more than half of the top ten global semiconductor manufacturers⁽⁸⁾

(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.

Innovation and Product Introductions Expanding Addressable Market

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



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



- Second factory; opened in September 2018
- 100,000 sq. ft. facility
- Shifting large portion of future production to this facility
- Additional dedicated space for product sub-assembly, component inventory and manufacturing related offices
- Added 2nd floor production in 2020

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

2021 Outlook

- **Estimated 2021 revenue guidance of \$205 to \$230 million**

- 39% year-over-year growth at the mid-point

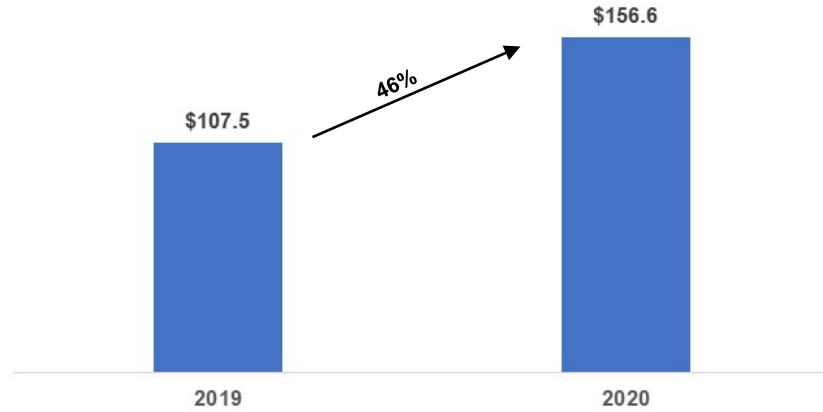
- **Outlook assumes:**

- Improvement with respect to global COVID-19 pandemic
- Stability in U.S.-China trade policy
- Various spending scenarios for production ramp of key customers
- Variance in the trajectory of DRAM recovery
- Range of timing and magnitude for acceptances for first tools under evaluation

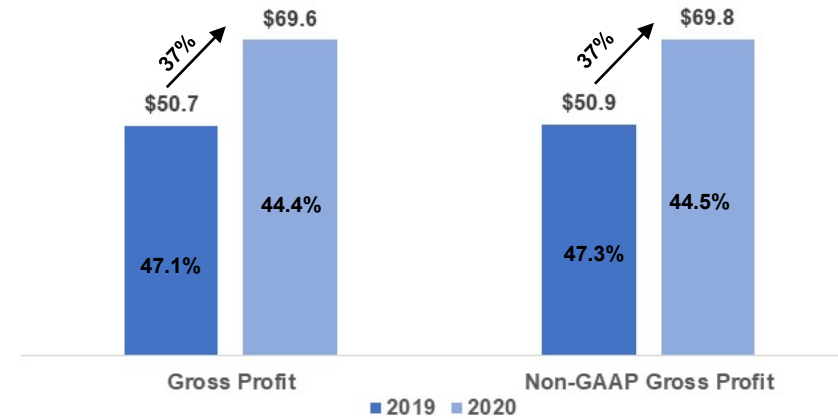
2020 Financial Results

\$ Millions

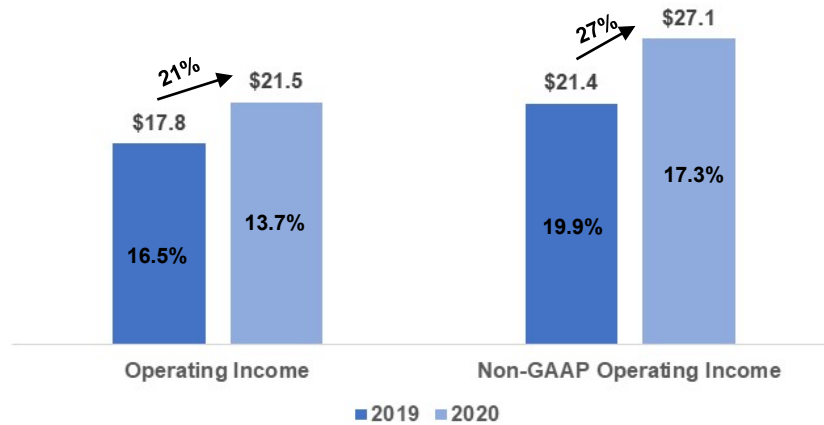
Revenue



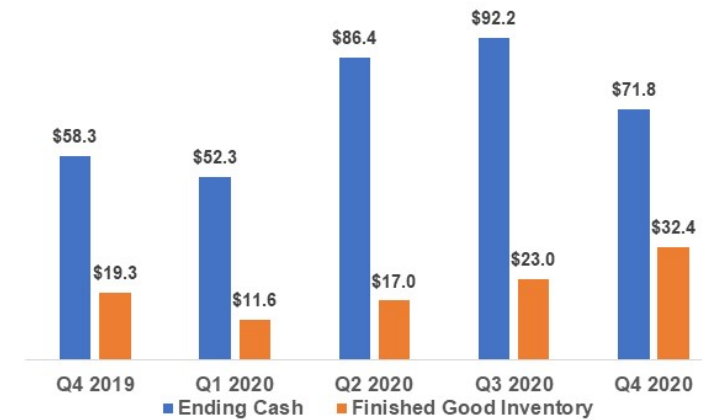
Gross Profit



Operating Income



Balance Sheet Data*

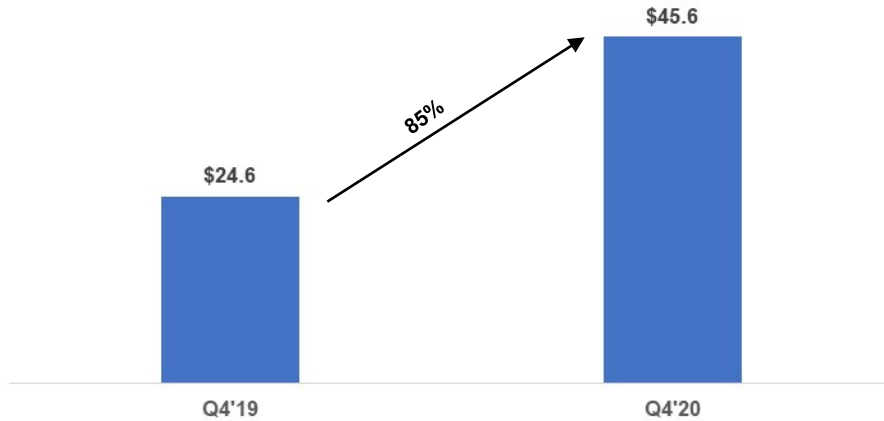


* Finished goods inventory represents 'demo-to-sales' product which have been delivered to customers for evaluation. These products are carried at cost until ownership is transferred.

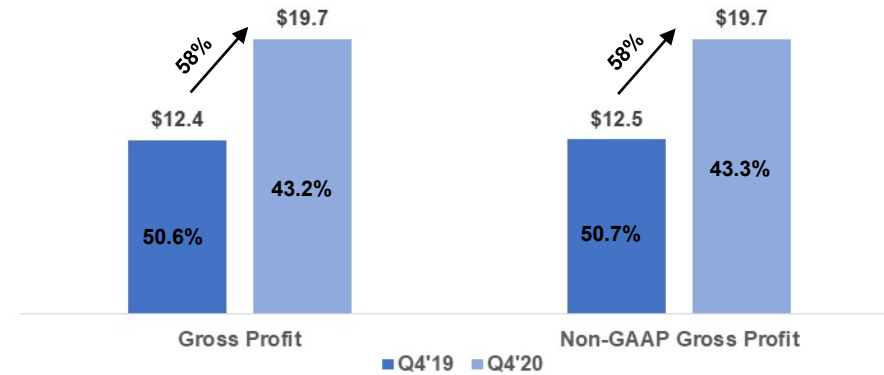
Q4 2020 Financial Results

\$ Millions

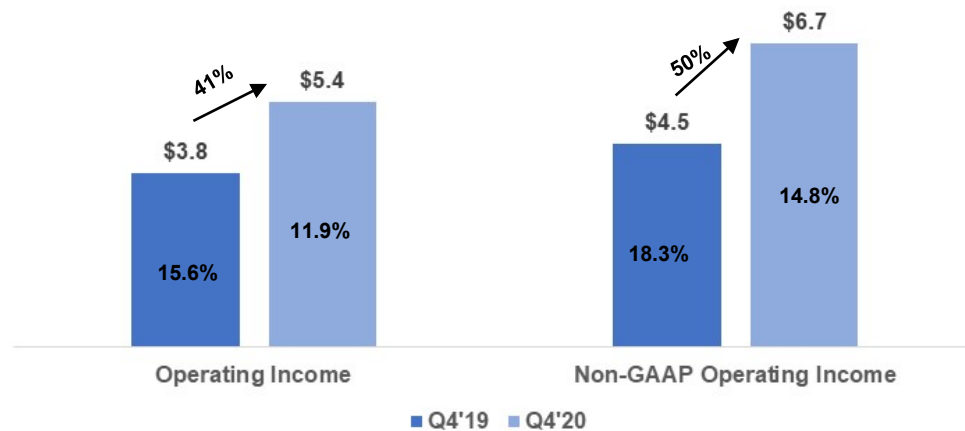
Revenue



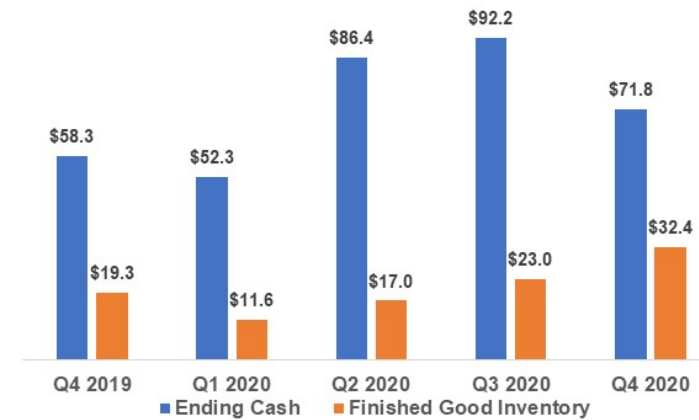
Gross Profit



Operating Income

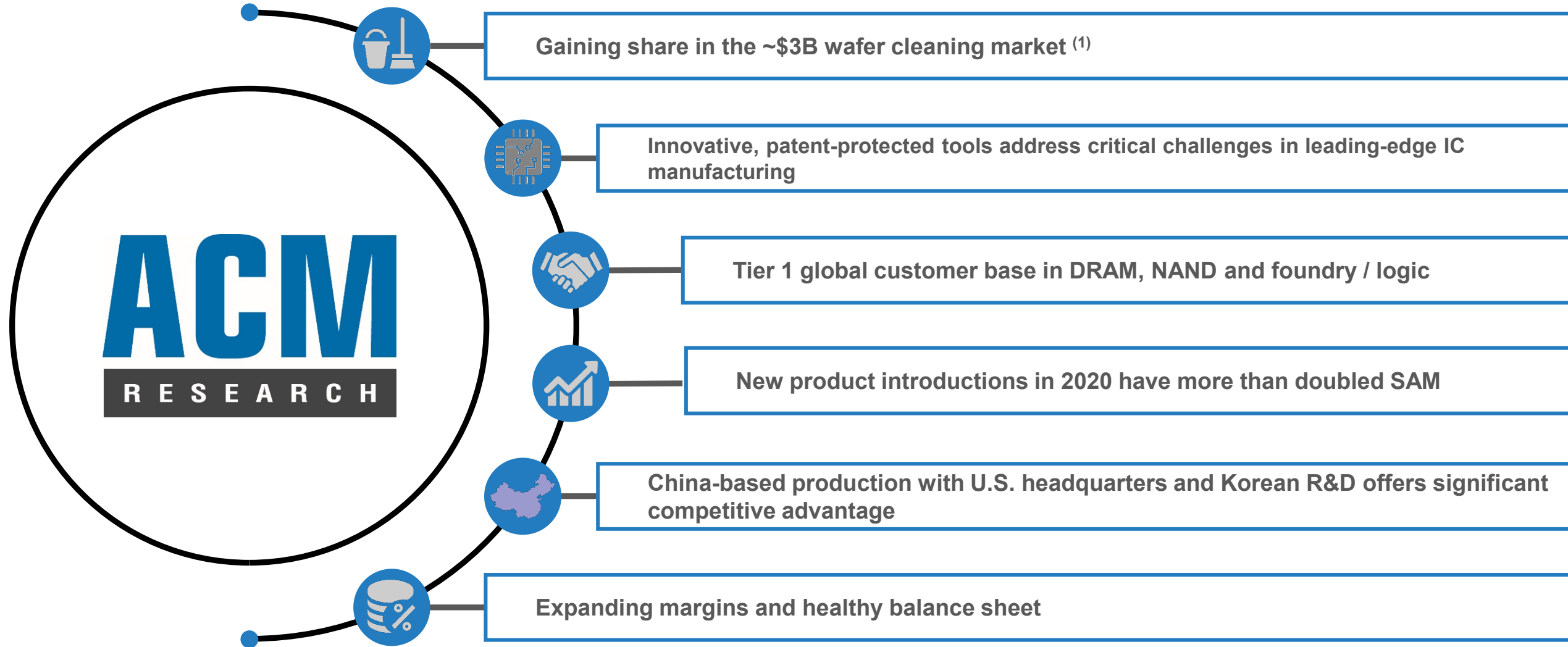


Balance Sheet Data*



* 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.