



Supplemental Investor Presentation Earnings Release – Fourth Quarter 2019

March 19, 2020



Forward-Looking Statements. Information presented below under “2020 Outlook” with respect to revenue projected to be generated in 2020 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, 2018 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 2019 Operating Highlights,” “2019 Financial Results” and “Q4’19 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 gross profit and non-GAAP operating profit. 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 full year 2019 earnings release dated March 18, 2020, which (a) has been filed with the Securities and Exchange Commission and can be viewed at https://www.sec.gov/Archives/edgar/data/1680062/000114036120006268/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-2019-results>.

Q4 and 2019 Operating Highlights

- **2019 Financial Highlights**
 - \$107.5 million revenue, up 44% from 2018
 - 47.1% GAAP gross margin and 16.5% GAAP operating margin
 - 47.3% non-GAAP gross margin and 19.9% non-GAAP operating margin
 - \$9.4 million cash flow from operations
- **Total shipments of \$115 million in 2019 vs. \$95 million in 2018**
 - \$25 million in Q4 2019 vs. \$43 million in Q3 2019 and \$32 million in Q4 2018
- **Key Operational and Strategic Progress:**
 - Expanded customer base to five major IC manufacturers
 - Strengthened product line with new Ultra-ECP ap and map products; Good progress with Tahoe and Tebo
 - Increased sales and marketing effort in North America, Europe, and Southeast Asia
 - Entered negotiations for longer-term R&D and production facility in Lingang region of Shanghai
 - On track to submit application for STAR Market IPO in mid-2020
- **Ended 2019 with \$58 million of cash, up from \$27 million in 2018**
 - An additional \$60 million in proceeds raised by ACM Shanghai held as restricted cash

Single-Wafer Wet Cleaning Products

Innovative, patent-protected tools address critical challenges in leading-edge IC manufacturing

SAPS



Megasonic Cleaning for Flat and Patterned Wafer Surfaces

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

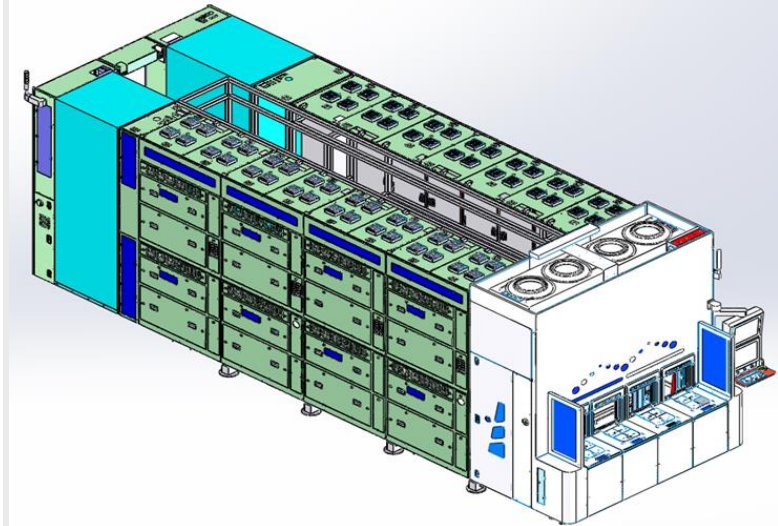
TEBO



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



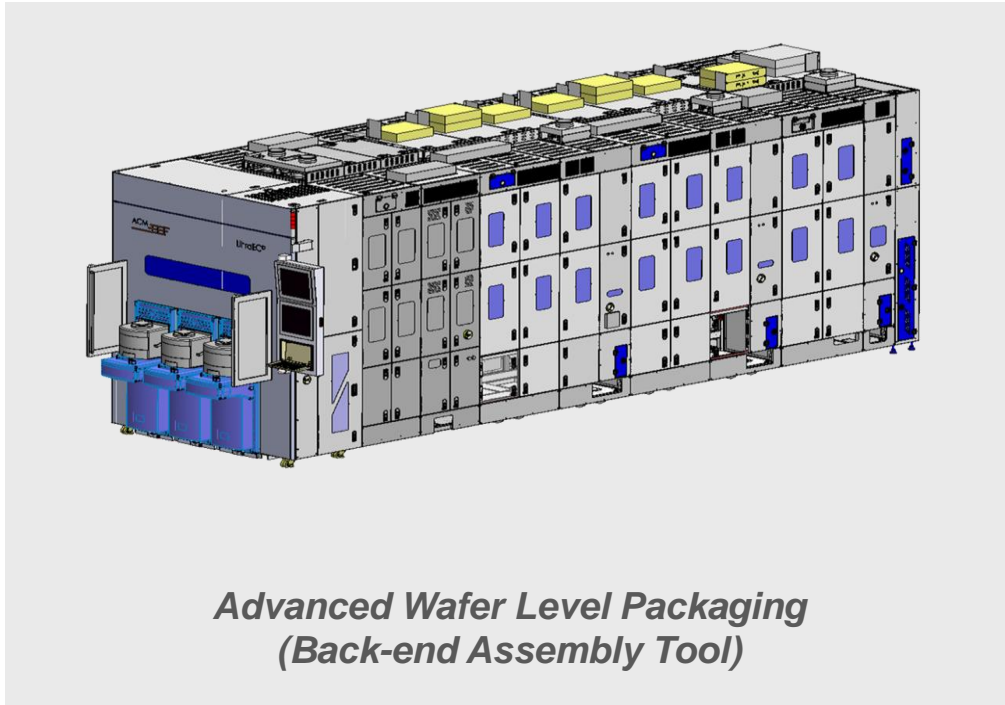
Hybrid Wafer Cleaning With Significant Cost & Environmental Benefits

- ✓ Environmentally friendly that uses 1/10 of the sulfuric acid used by conventional tools
- ✓ High cleaning performance at low cost

New Electrochemical Plating Products Significantly Increase TAM

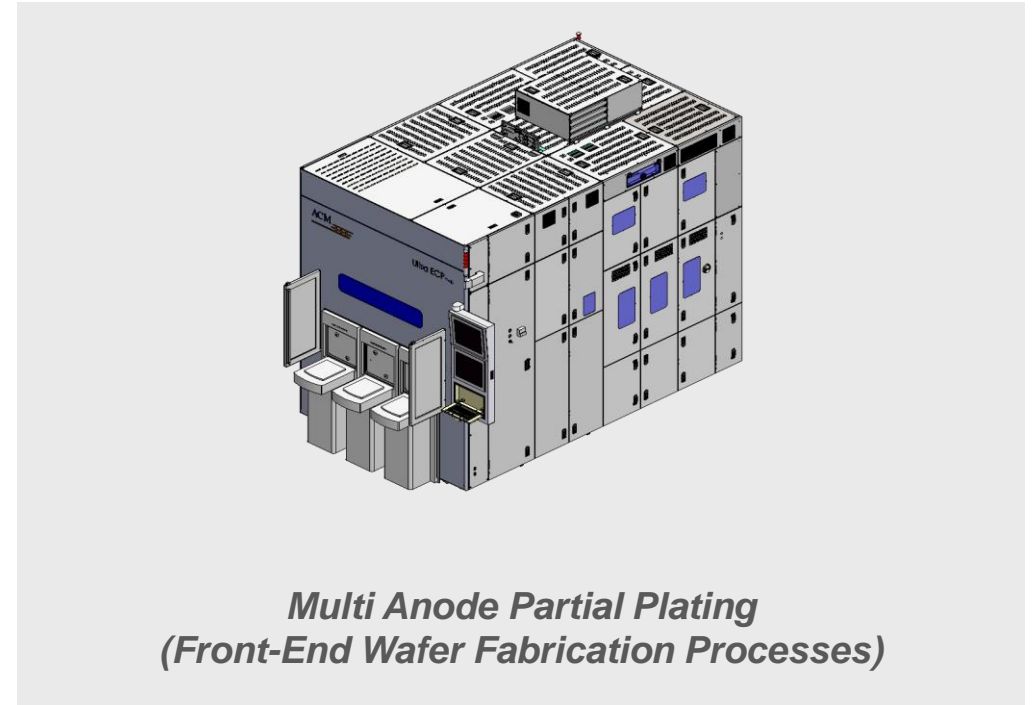
Delivers significant benefits to customers, including greater performance, increased flexibility and improved cycle times

Ultra ECP ap



- ✓ Back-end assembly tool used for applying copper, tin and nickel to wafers at the die level before packaging
- ✓ Produces uniform and consistent results

Ultra ECP map

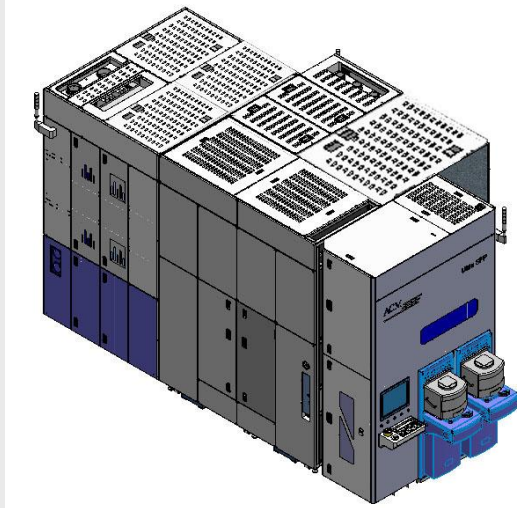


- ✓ Delivers world-class electrochemical copper plating for advanced copper interconnect applications
- ✓ Offers significant performance advantages relative to competitors

New SFP Product Significantly Reduces Cost of Consumables (CoC) for Customers

Delivers significant benefits to customers, including greater performance, increased flexibility and lower CoC

Ultra SFP ap



*Advanced Wafer Level Packaging
(Back-end Assembly Tool)*

- ✓ Back-end assembly tool used for polishing metal film in TSV, 2.5 D in advanced package applications

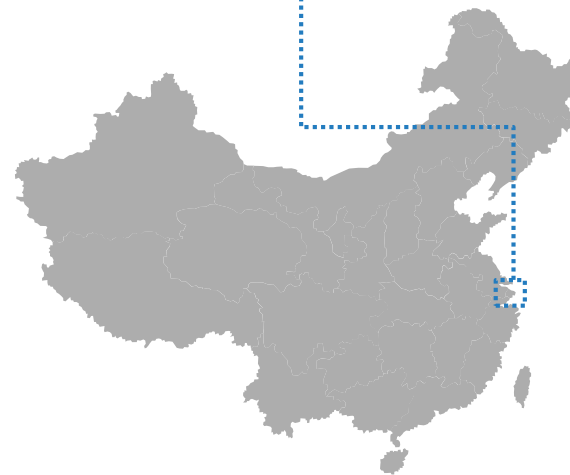
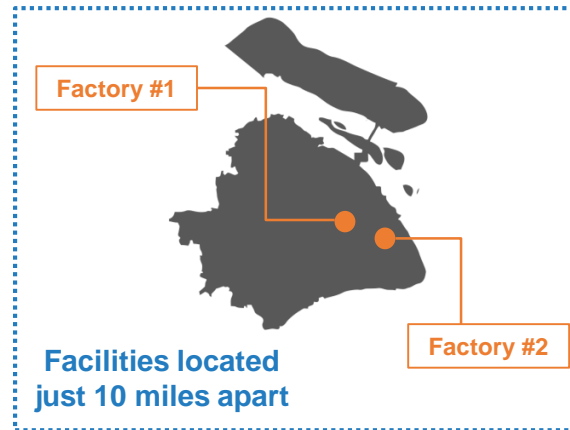
Shanghai Manufacturing Facilities

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

Shanghai Locations



Facility #2



- Second factory; opened in September 2018
- 50,000 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
- 2nd floor available for additional expansion

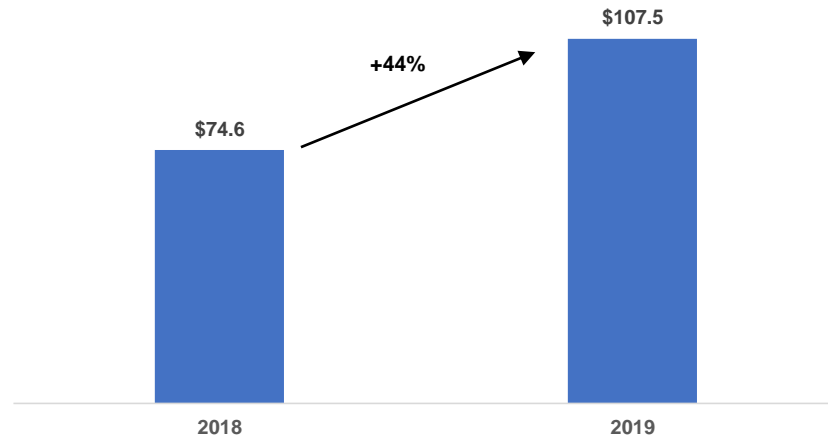
2020 Outlook

- **Q1 revenue and shipments have been impacted by COVID-19**
- **Estimated 2020 revenue in the range of \$130 million to \$150 million**
 - 30% y/y growth at the mid-point
 - Outlook assumes the COVID-19 situation continues to improve in China, and stabilizes in the coming months on a global basis

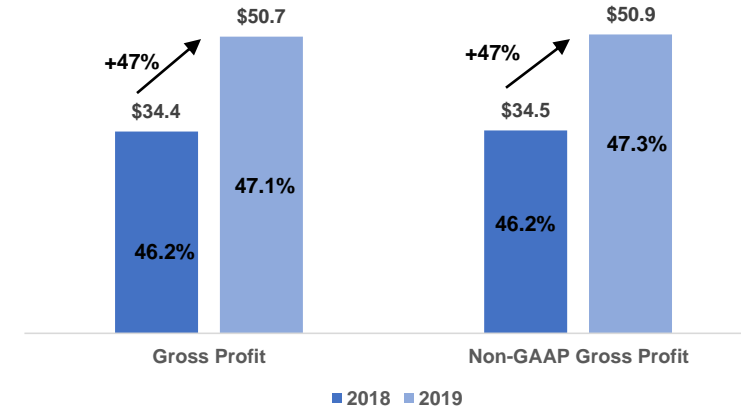
2019 Financial Results

\$ Millions, non-GAAP gross profit and operating profit

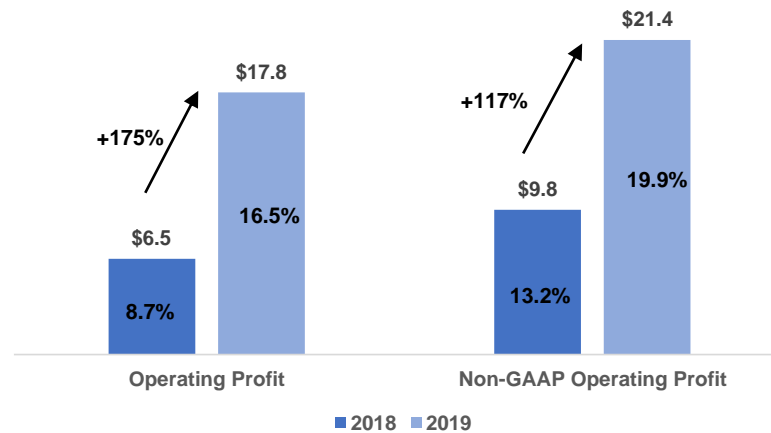
Revenue



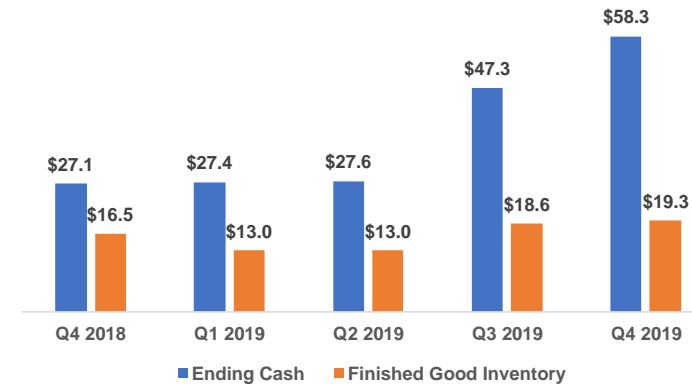
Gross Profit



Operating Profit



Balance Sheet Data*

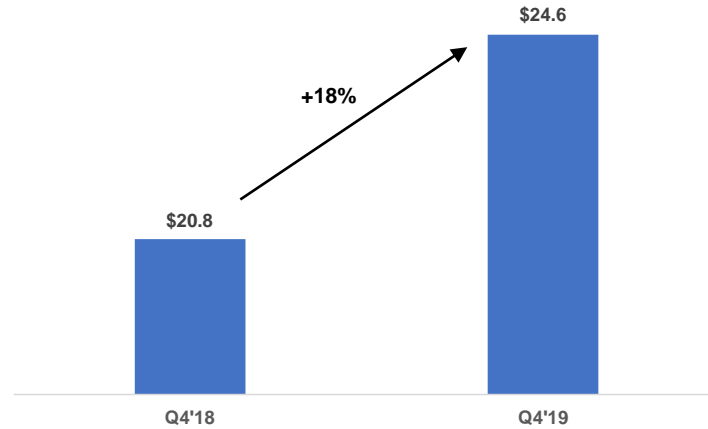


* Finished goods inventory represents 'demo-to-sales' product which have been delivered to customers for evaluation. These products are carried at cost until ownership is transferred.

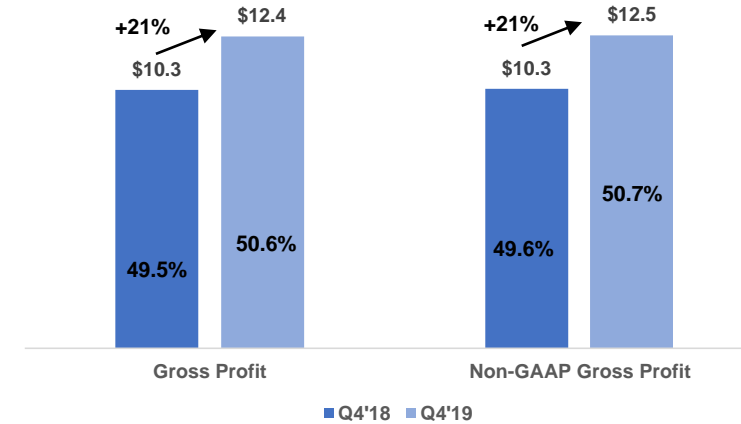
Q4'19 Financial Results

\$ Millions, non-GAAP gross profit and operating profit

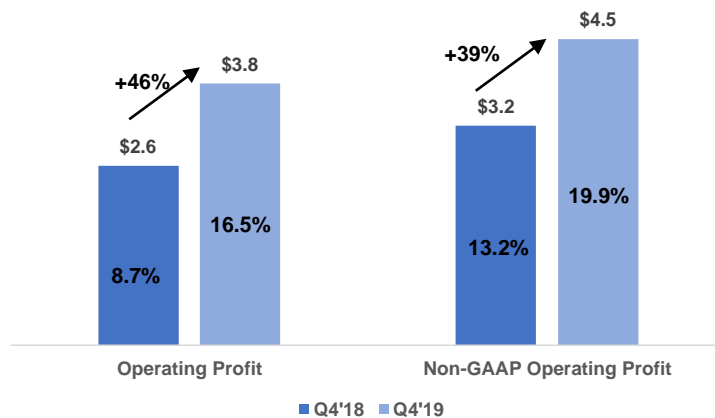
Revenue



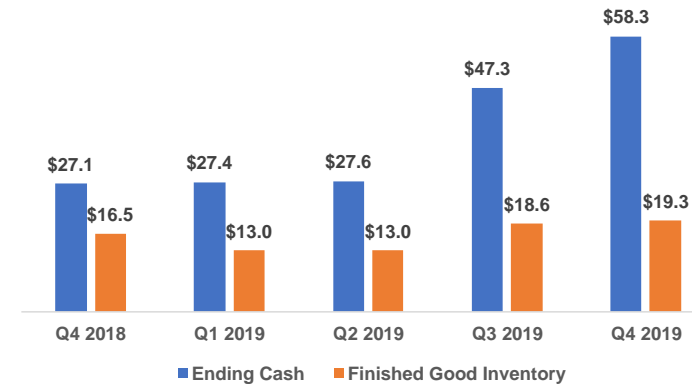
Gross Profit



Operating Profit



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.

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 2019 Revenue %: 28% (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 2019 Revenue %: 27% (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 2019 Revenue %: 20% (primarily DRAM)

Back-End Customers



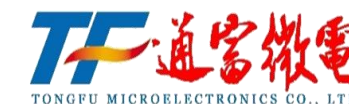
- Largest bumping house in China and leading WLCSP production base
- Subsidiary of OSAT company JCET
- Owns one of the most advanced packaging technology R&D service platforms⁽⁶⁾
- Global customer base with exposure to the U.S., Western Europe and Asia



- Mainland China's largest foundry
- Tier one customer base including 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⁾

New DRAM Customer

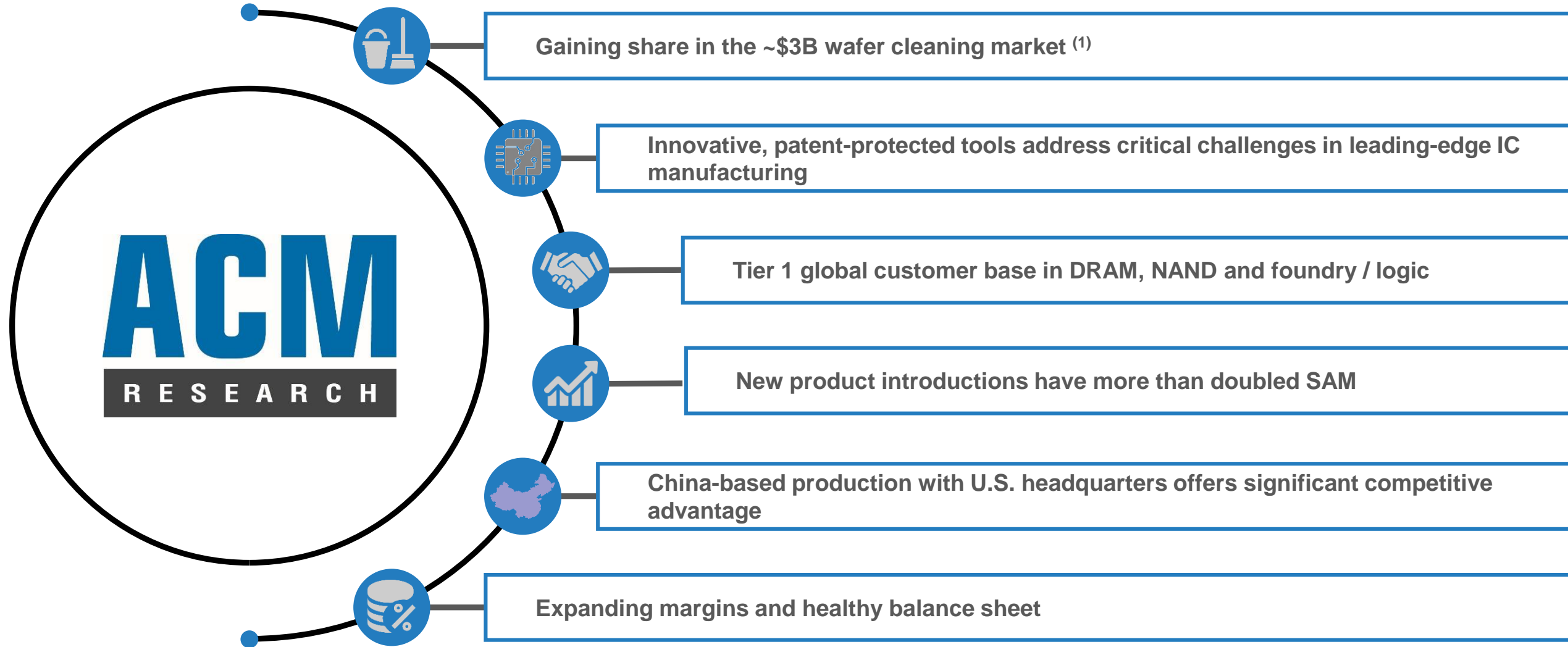
- New China-based entrant to DRAM industry
- Ordered 12-Chamber SAPS-V tool for evaluation
- ACM delivered first-tool in Q4 2019



- 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.

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.