



Supplemental Investor Presentation Earnings Release – Second Quarter 2019

August 8, 2019



Forward-Looking Statements. Information presented below under “Outlook” with respect to revenue to be generated in 2019 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: 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, 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 press release.

Market Data. Information presented below under “Investment Highlights” concerning ACM Research’s addressable markets 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 “Q2 2019 Operating Highlights” and “Q2’19 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 second-quarter earnings release dated August 8, 2019, which (a) has been filed with the Securities and Exchange Commission and can be viewed at https://www.sec.gov/Archives/edgar/data/1680062/000165495419009002/acm_ex991.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-second-quarter-2019-results>.

Q2 2019 Operating Highlights

- **Business Momentum Remains Strong Amidst Cycle**
- **Excellent Q2 Results**
 - \$29.0 million revenue, up 39% from Q2 2018
 - 45.3% GAAP gross margin and 16.1% GAAP operating margin
 - 45.4% non-GAAP gross margin and 18.2% non-GAAP operating margin
 - Solid cash balance of \$27.6 million at June 30, 2019
- **Total shipments of \$33 million in Q2 2019**
 - Increase of more than 50% from Q2 2018
- **Key operational progress:**
 - SAPS-V order from a new DRAM customer in China
 - Promising initial test results on Ultra-C Tahoe demo tool
 - Delivered Ultra ECP MAP “first-tools” to foundry customers as scheduled

Key Front-end Customers



- 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⁽⁵⁾
- ACM 2018 Revenue %: 23% (Primarily DRAM)



- Major new entrant into NAND flash and DRAM industry
- Expanding capacity with construction of \$24B production facility in Wuhan⁽¹⁾
- Proprietary Xtacking architecture which they are using to produce 3D NAND products⁽²⁾
- ACM 2018 Revenue %: 39% (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⁽⁴⁾
- ACM 2018 Revenue %: 24% (Primarily Foundry / Logic)



- 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⁽⁶⁾

New DRAM Customer

- New China-based entrant to DRAM industry
- Ordered 12-Chamber SAPS-V tool for evaluation
- ACM expects to deliver first-tool in Q4 2019, with revenue recognition upon acceptance

(1) Source: Nikkei Asian Review. (2) Source: YMTC Press Release. (3) Source: HLMC Press Release. (4) Source: HLMC Press Release. (5) Source: Reuters. (6) Source: AnandTech.

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

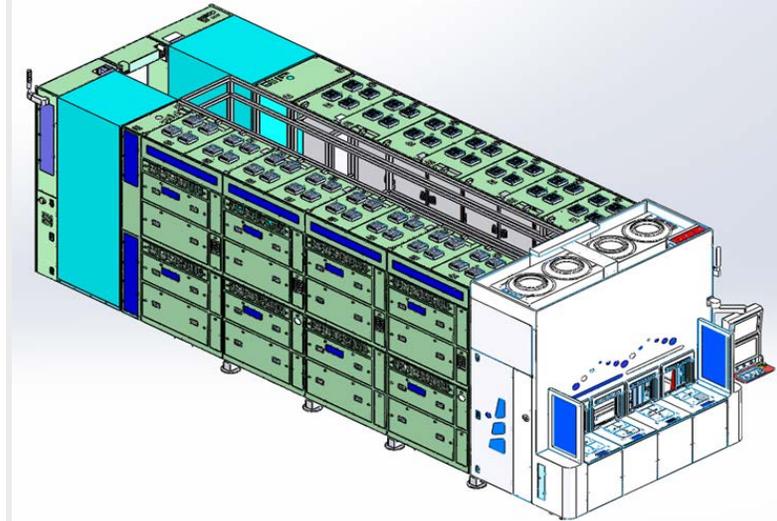
TEBO



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



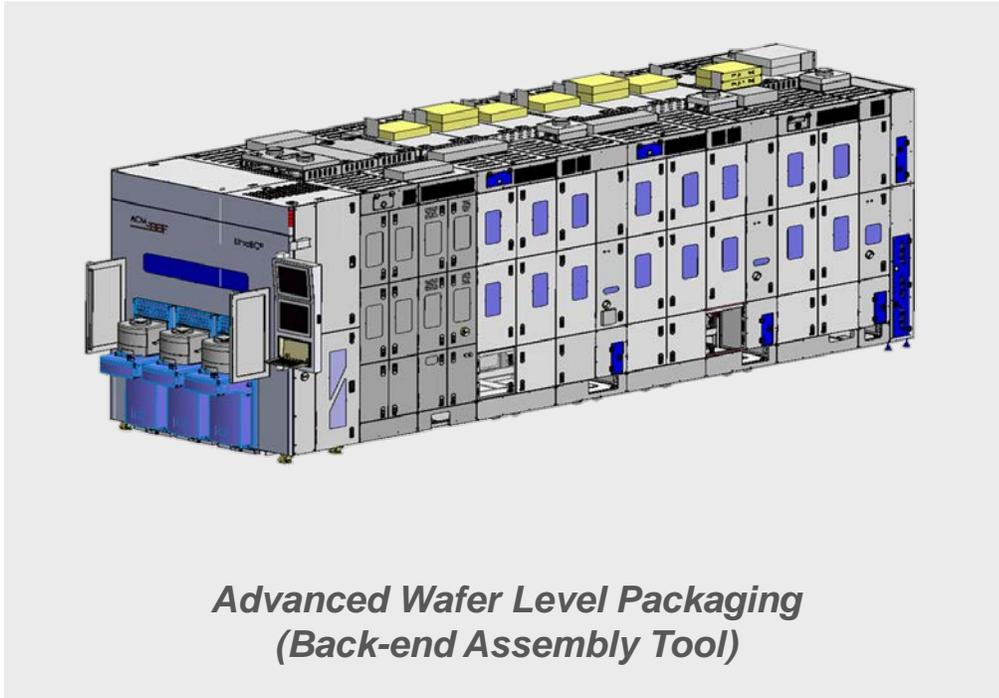
Hybrid Wafer Cleaning With Significant Cost & Environmental Benefits

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

New Electrochemical Plating Products Significantly Increase TAM

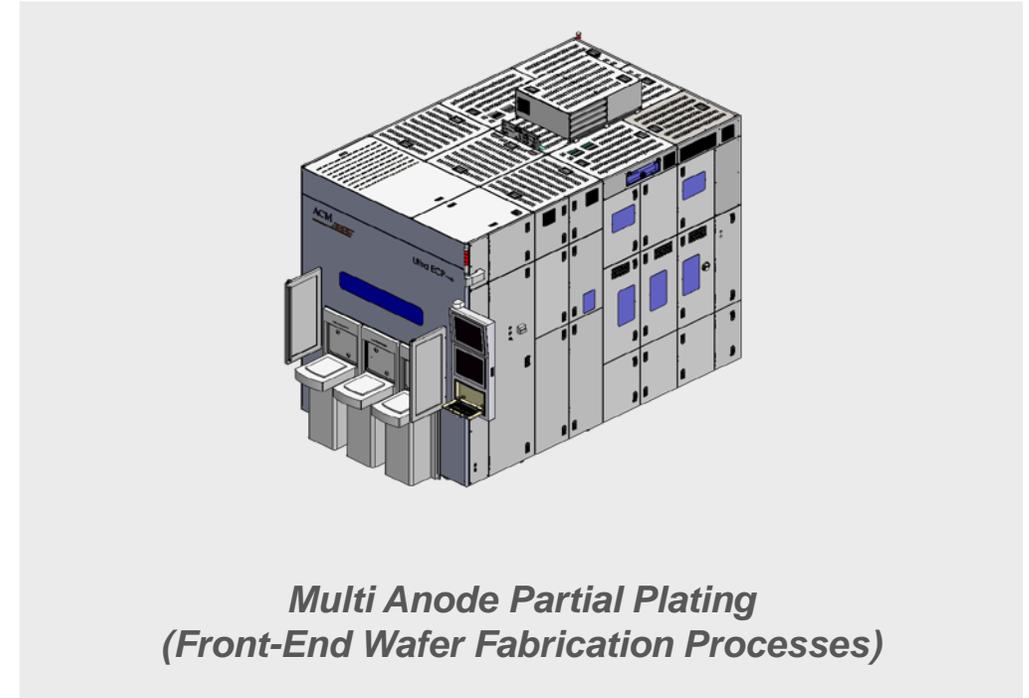
Delivers significant benefits to customers, including greater performance, increased flexibility and improved cycle times

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

Strategic Investment Plan – Access China’s Capital Markets

- **Announced in June 2019**
- **Plan to list shares of ACM Research (Shanghai), Inc., the principal operating subsidiary of ACM Research, on Shanghai Exchange’s Sci-Tech innovAtion boARd (“STAR Market”)**
 - ▶ Direct access to local capital to support China operations
 - ▶ Relatively attractive valuation vis-à-vis current NASDAQ trading prices for ACM Research common shares
 - ▶ Raise profile within the business and investment communities
- **\$27.3 million* private placement first step to qualify for STAR Market listing**
 - ▶ \$23.5 million* to be invested from third-party investors at **\$675 million*** pre-money valuation
 - ▶ \$3.8 million to be invested from ACM employees at a discount
 - ▶ Potential for STAR Market premium to enable significant capital raise at just 20% dilution
- **ACM Research remains committed to NASDAQ listing status and global market opportunities**

*Based on China RMB to US dollar exchange rate on 6/12/2019, the effective date of the agreement.

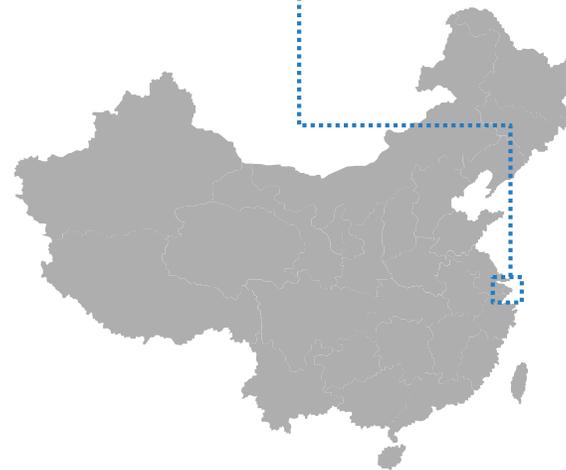
Shanghai Manufacturing Facilities

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

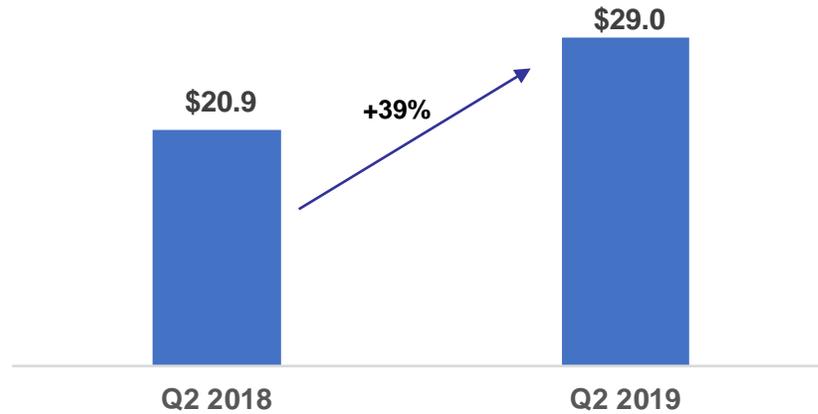


- Second factory; opened in September 2018
- 50,000 sq. ft. facility
- Shifting large portion of future production to this facility
- Additional dedicated space for product sub-assembly, component inventory and manufacturing related offices
- 2nd floor available for additional expansion

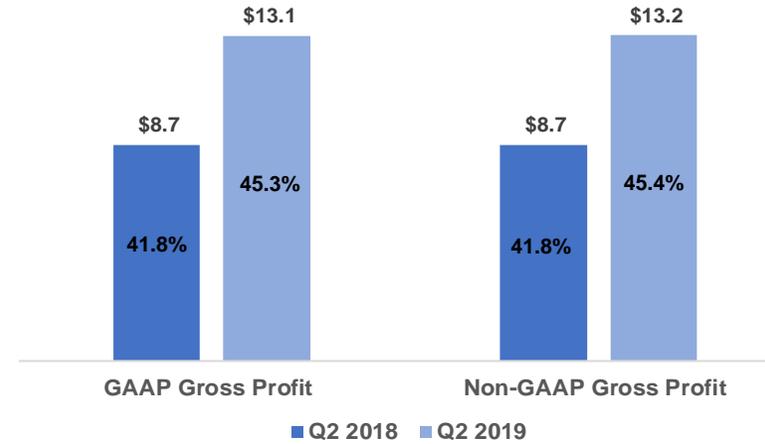
Q2'19 Financial Results

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

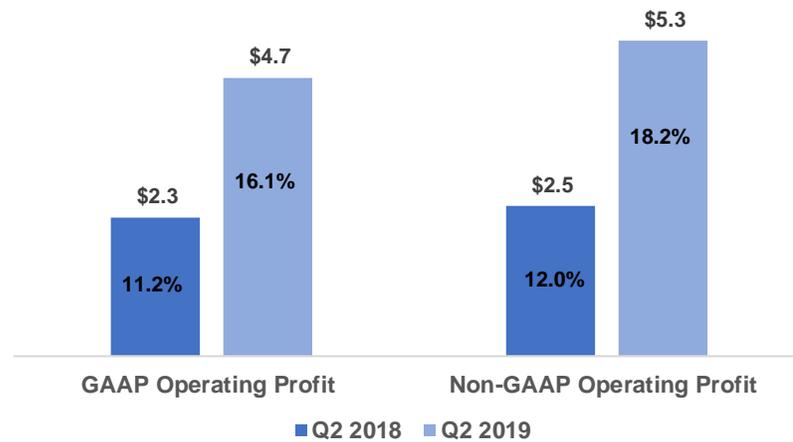
Revenue



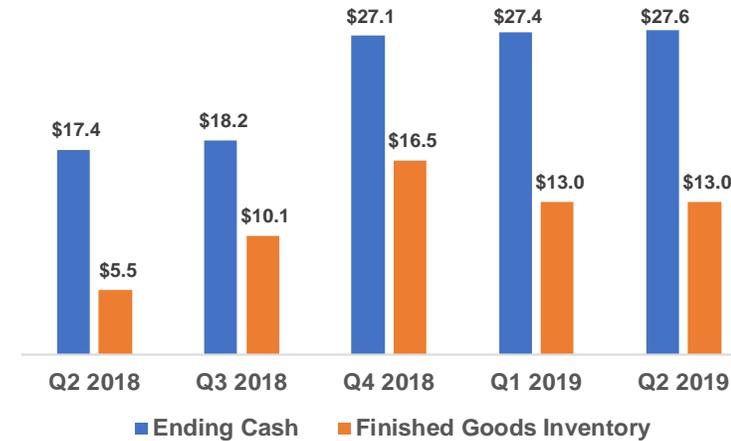
Gross Profit



Operating Profit



Balance Sheet Data*

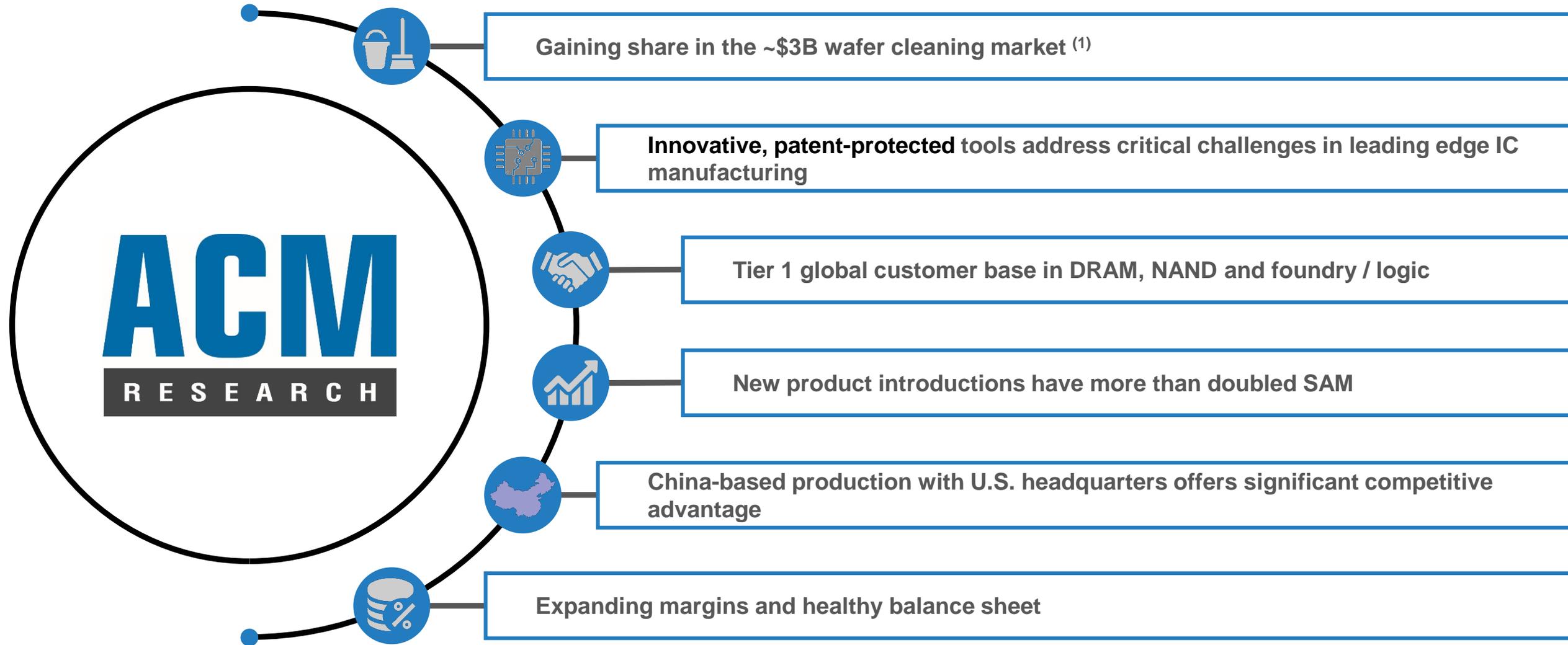


* Finished goods inventory represents 'demo-to-sales' product which have been delivered to customers for evaluation. These products are carried at cost until ownership is transferred.

We have raised our 2019 revenue outlook to \$105 million, an increase of \$5 million from previous outlook

- Outlook represents more than 40% year-over-year growth
- Reflects strong demand from existing customers

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