



atomera

Atomera Briefing– July 2016

Scott Bibaud

President and CEO

Note Regarding Forward-Looking Statements



This document contains forward-looking statements concerning Atomera Incorporated ("Atomera," the "Company," "we," "us," and "our"). The words "believe," "may," "will," "potentially," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect" and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning the following:

- our future financial and operating results;
- our intentions, expectations and beliefs regarding anticipated growth, market penetration and trends in our business;
- the timing and success of our plan of commercialization;
- our ability to operate our royalty-based business model;
- our ability to have our technology solutions gain market acceptance;
- our ability to maintain, protect and enhance our intellectual property;
- the effects of increased competition in our market and our ability to compete effectively; and
- our expectations concerning our relationships with potential customers, partners and other third parties.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the "Risk Factors" section of the Registration Statement on Form S-1 filed by Atomera with the Securities and Exchange Commission on June 30, 2016. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this document may not occur and actual results could differ materially and adversely from those anticipated or implied in our forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances described in the forward-looking statements will be achieved or occur.

This document contains only basic information concerning Atomera. Because it is a summary it does not contain all of the information you should consider before investing.

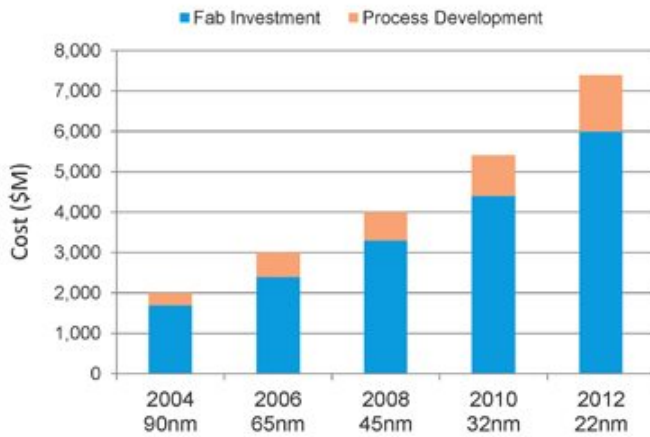
The issuer has filed a registration statement (including a prospectus) with the SEC for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it by calling National Securities Corporation toll-free at 1-800-742-7730.

Investment Overview



- Mears Silicon Technology (MST) is a platform technology
 - Improves electron mobility, resulting in significant power savings
 - Can also enable smaller circuit sizes and improved production yields
- We have a capital-light business model
 - Highly leverageable licensing strategy
 - Strong and growing patent portfolio to support our licensing activities
- After 15 years and \$70M, we are at an inflection point with customers
 - We are in process qualification programs with large semiconductor companies
 - We have engaged with several industry leaders to help us bring MST to market
- We have a strong team to take us to commercialization
 - CEO ran \$1B+ divisions at Broadcom and Altera
 - Founder/CTO co-invented the erbium-doped fiber amplifier (enabling broadband)

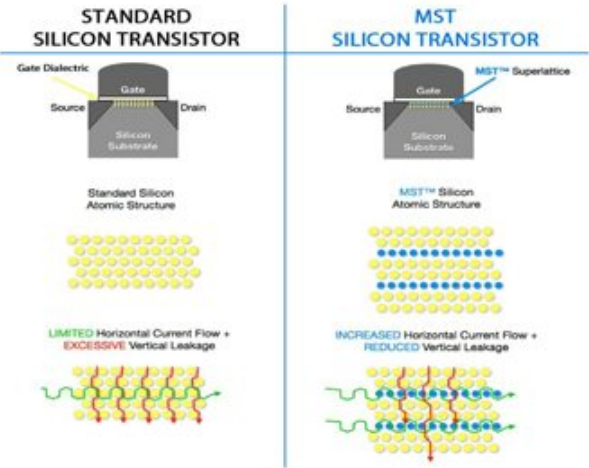
The skyrocketing cost of new nodes



Source: McKinsey & Co, "On Semiconductors"

MST Alternative

- MST can deliver a half-node to a full node of benefits to manufacturers
 - Allows them to stay in depreciated fabs
 - Saves on new process development
- Cost to implement MST is tiny in comparison to developing a new node
 - Process development/licensing is ~\$10M
 - Fab equipment upgrades cost ~\$30-50M
 - A new fab to get similar benefits costs billions
- MST may deliver capabilities not available elsewhere
 - Power/performance levels may enable new applications in memory, systems
 - Potentially solves problems with geometries smaller than 22 nm



- ### Potential Benefits
- **Improved Efficiency**
 - Improved performance at same power consumption
 - Same performance at lower power consumption
 - **Reduced Die Size**
 - Lower power needs
 - Lower bottom line cost
 - **Improved Yield**
 - Less waste
 - Easier design parameters

MST's Potential Benefits

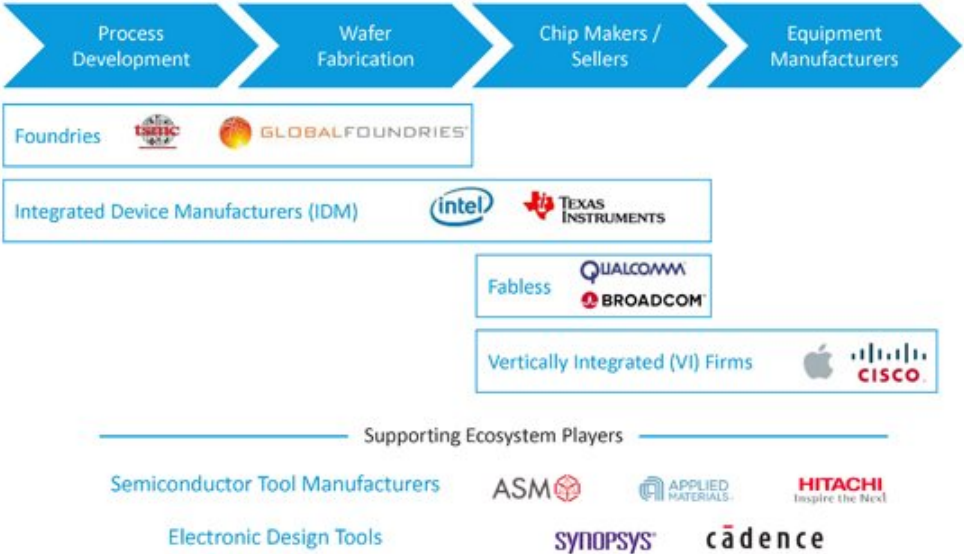


- Overall Improved Efficiency: Smartphone
 - 45%-52% added battery life (depending on usage)
 - Increased cost to add MST expected to be insignificant to total phone cost
 - Opportunity to increase performance instead of saving power
- Reduced Die Size: Power Management IC
 - Die size reduction of 15-21%
 - Lower power draw
 - Lower total cost per device
- Product Enablement: Mobile DDR Memory
 - Could create a whole new class of memory for mobile devices
 - Would enable low-power wearables and Internet-of-Things devices
 - May provide significant improvements to standby power



Sources: Smartphone power consumption papers (Carrol & Geisser)
3rd party consultant simulations
Atomera analysis

Semiconductor Ecosystem



Category	2018 Projected TAM (million wafers) ¹	2018 Projected TAM (millions) ²
Digital Logic (Lagging)	10.5	\$460
Digital Logic (Leading)	8	\$576
Digital Processors	3	\$270
Digital Memory (DRAM)	22	\$1,023
Digital Memory (Flash)	23	\$1,070
Analog	8	\$278

¹ Source: VLSI Research 2012, IC Knowledge 2011

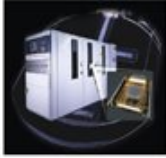
² Calculated based on midpoint of potential royalty and wafer price ranges based on Atomera estimates (300 mm equivalent wafers)

Initial Customers and Partners



Initial Customers

- Asian Analog IDM (Parent has \$10+ Billion in Sales): *Early commercial negotiations*
 - High-Performance power management and audio processing
 - Completion of MST evaluation expected as early as end of 2016
- US Analog / Digital IDM (\$1+ Billion in Sales): *In product evaluation*
 - Power management IC (Large business segment)
 - Completion of MST evaluation expected as early as 2017
 - Engagements underway with other business segments
- Asian Foundry (\$1+ Billion in Sales): *In commercial negotiations*
 - First product focus area is analog and power management ICs
 - In negotiations to jointly market Atomera technology to customers worldwide



Initial Partners	Value
Three key providers of EPI processing tools	Enables customers to quickly adopt MST
Market leading provider of Electronic Design Tools (EDA)	Speeds up qualification and time to revenue
Specialty wafer fabrication facility	Development/test partner for MST technology

Management and Board



Scott Bibaud	Dr. Robert Mears	Erwin Trautmann
President, CEO & Director	CTO & Founder	EVP Bus Dev and Director
<ul style="list-style-type: none"> ■ Spent the last 23 years growing large, successful semiconductor businesses ■ SVP/GM - Altera's \$1.2B Communication division ■ EVP/GM - Broadcom's Mobile Platforms Group ■ B.S., Electrical Engineering, Rensselaer Polytechnic Inst. ■ M.B.A., Harvard Business School ■ Joined Atomera in October 2015 	<ul style="list-style-type: none"> ■ Pioneer in nanoscale material science /engineering ■ In the late 1980s, expanded bandwidth of fiber optic cable by co-inventing the Erbium Doped Fiber Amplifier ■ B.A. / M.A., Physics, Oxford University ■ Ph.D., Physics, University of Southampton ■ Emeritus Fellow, Pembroke College, University of Oxford ■ Founded Atomera in 2001 	<ul style="list-style-type: none"> ■ 30+ years in semiconductor space, with Fortune 500 executive experience ■ SVP - KLA-Tencor, the leading supplier of Yield Enhancement Solutions ■ VP - Texas Instruments (TI); P&L responsibility for product lines with sales of \$1.6B+ ■ B.S., Chemical Engineering, FH Mannheim, Germany ■ Joined Atomera in September 2011
John Gerber	Dr. Rinn Cleavelin	Rolf Stadheim
Chairman	Non-Executive Director	Non-Executive Director
<ul style="list-style-type: none"> ■ Managing Partner of Four Points, a specialty investment group with \$1.8B+ transaction experience ■ Former Director / CEO of two tech startups ■ B.S.E, Princeton University ■ M.A., Harvard University ■ Founding shareholder & Atomera director since 2001; Chairman since 2011 	<ul style="list-style-type: none"> ■ 34 years of experience in the semiconductor industry ■ Former Manager for Devices and Manufacturing for External R&D at TI ■ Former COO of International SEMATECH ■ B.S., University of Central Oklahoma ■ M.S. / Ph.D., Texas Tech University ■ Atomera director since 2011 	<ul style="list-style-type: none"> ■ Extensive licensing and intellectual property experience ■ Founder and Managing Partner of Stadheim & Gear, a leading patent and intellectual property licensing and enforcement practice ■ B.A., University of Wisconsin ■ J.D., University of Chicago ■ Atomera Director since 2008

Capitalization Table



Security	Current	Post-IPO
Common Stock Outstanding (1)	1,617,313	1,837,495
Commons Stock Issuable on Conversion of Promissory Notes (2)	6,065,549	6,065,549
Options Outstanding (3)	538,014	538,014
Options Reserved for Future Issuance	75,312	2,296,005
Warrants Outstanding (4)(5)	398,965	638,965
Common Stock Issued in IPO (5)		2,400,000
Fully-diluted share total	8,695,153	13,776,028
Common Stock + in-the-money portion of derivatives (6)	8,061,396	10,681,578
Common Stock	7,682,862	10,303,044
Company Valuation @ \$7.50/share	\$57,621,465	\$77,272,830

(1) Increase reflects issuance of IPO bonus stock to be awarded to management

(2) Reflects accrued interest through 3/31/15

(3) Post-IPO, options outstanding will have a weighted average strike price of approximately \$6.98

(4) Post-IPO, warrants outstanding will have a weighted average strike price of approximately \$5.12

(5) Does not include underwriter's overallotment of shares (360,000 shares) and related warrants (which have 36,000 shares underlying them)

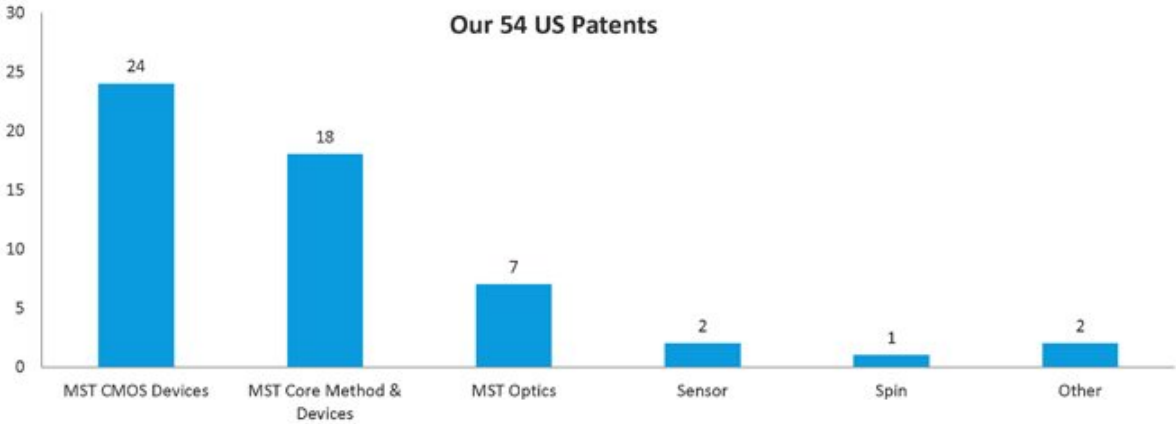
(6) Assumes cashless conversion of in-the-money derivatives



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Backup Slides

- Founded 2001 by Dr. Robert Mears
 - Nano-scale material science and engineering pioneer
 - Co-Inventor of EDFA expanded bandwidth of optical cable; $\geq 1000x$ (mid-1980s)
- CEO Scott Bibaud (EVP Division GM Broadcom, Altera)
- Formerly Mears Technologies, name change to Atomera in 2016
- We develop and license semiconductor technologies (MST) and manufacturing solutions
 - Portfolio of quantum engineered materials solutions for semiconductors, optical and solar applications
 - Large foreign and domestic patent portfolio
- Currently focused on optimizing transistor performance in leading and lagging process nodes for foundries and IDMs
 - Analog, logic, memory



Including foreign counterparts, we have >110 granted patents, with further patents pending