



# Investor Presentation

November 2018

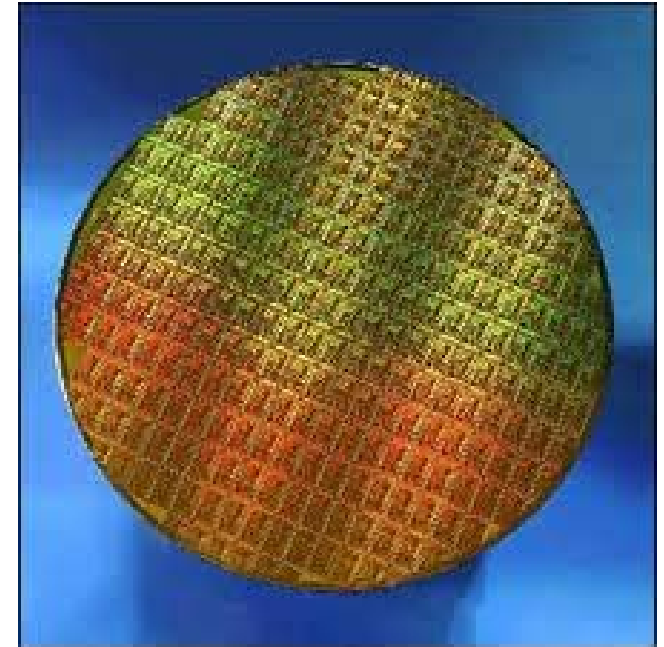
This presentation contains forward-looking statements concerning Atomera Incorporated (“Atomera,” the “Company,” “we,” “us,” and “our”). The words “believe,” “may,” “will,” “potentially,” “estimate,” “continue,” “anticipate,” “intend,” “could,” “would,” “project,” “plan,” “expect” and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the “Risk Factors” section of our Prospectus Supplement filed pursuant to Rule 424(b)(5) with the SEC on October 11, 2018 (the “Prospectus Supplement”). In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this presentation 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.

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# Investment Overview

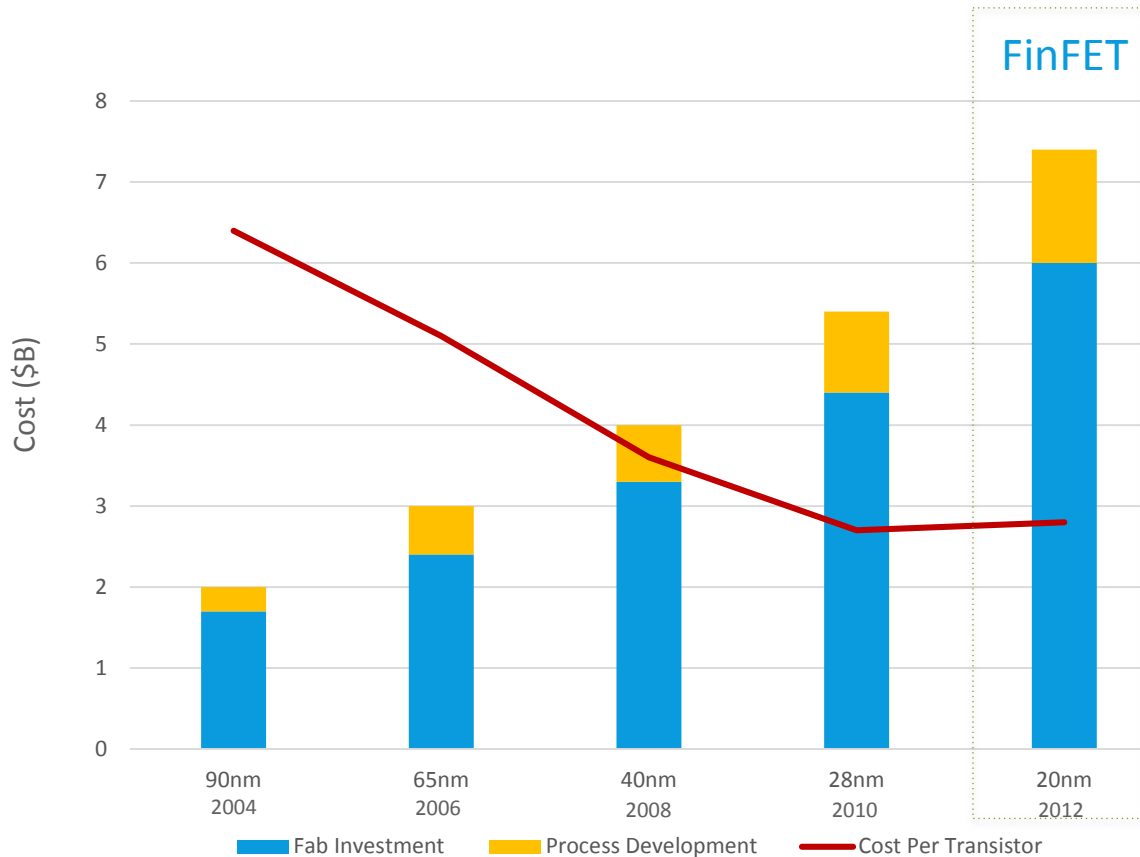


- **Mears Silicon Technology (MST®) is a thin film used to enhance semiconductors**
  - *Results in higher performance, lower power, and lower costs for ICs*
- **Capital-light IP licensing business**
  - *Robust and growing patent portfolio*
- **Engaged with 50% of world's top semiconductor makers**
- **Licenses with Asahi Kasei Microdevices (AKM) and STMicroelectronics**
- **Strong team to commercialize technology**
  - *CEO ran \$1B+ divisions at Broadcom and Altera*
  - *Founder/CTO co-invented the EDFA for long-haul optical applications*
  - *Deeply experienced materials science and semiconductor engineering team*
- **Well funded after with over \$20M of cash**



# Extending Moore's Law at every node

## The skyrocketing cost of new nodes



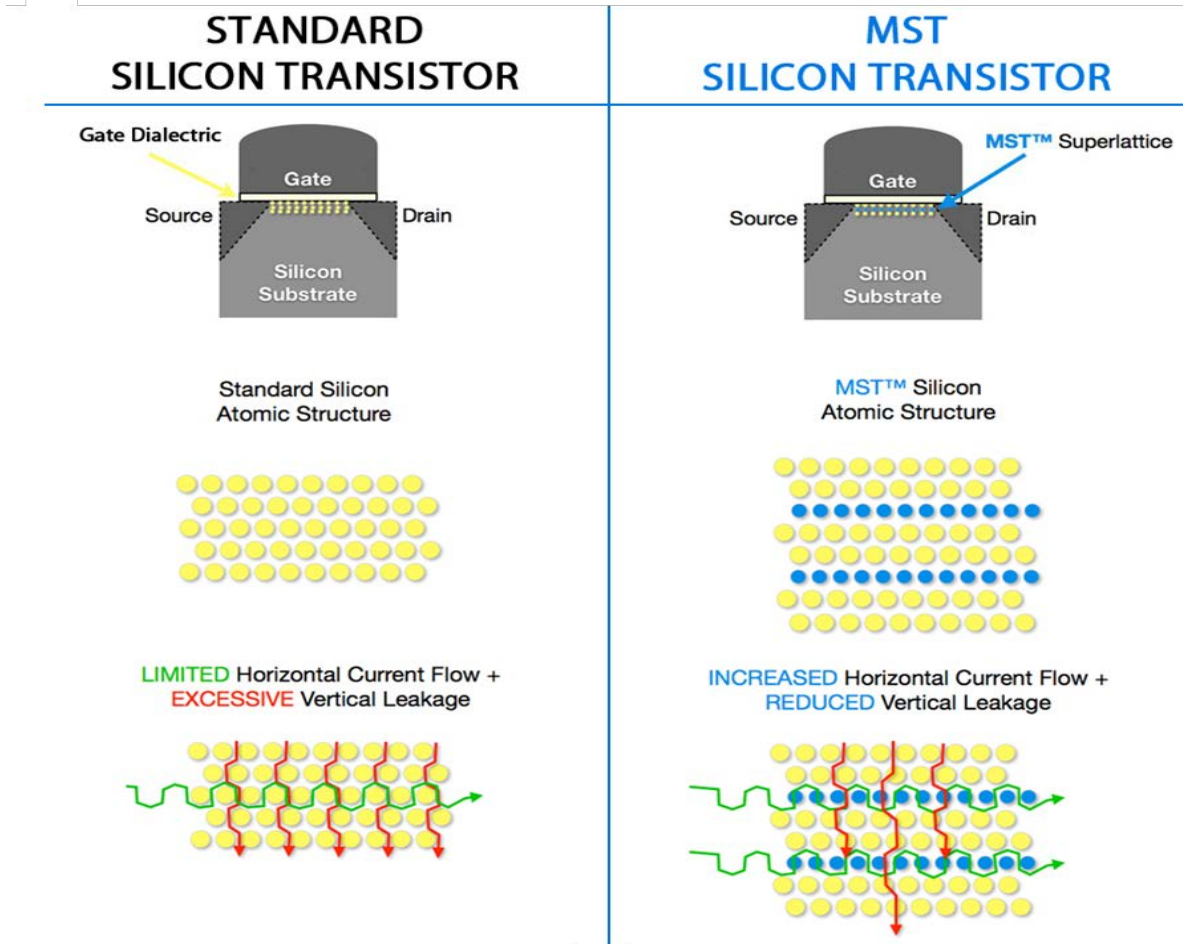
Source: McKinsey & Co, "On Semiconductors"

## MST: A cost effective solution to semiconductor's biggest problem

- **MST can deliver a half to a full node of improvements**
  - Performance strengthened at any process node
  - Continues driving down the cost per transistor
  - Also solves problems in FinFET transistors
- **MST cost is tiny in comparison to developing a new node**
  - IDM Process development/licensing is ~\$10M
  - Foundry equipment upgrades cost is ~\$30-50M
  - A foundry for a new node costs billions

**"From an economic standpoint, Moore's law is over."**

Silicon Valley analyst Linley Gwynnap, quoted in "After Moore's Law," *The Economist*, 12 March 2016



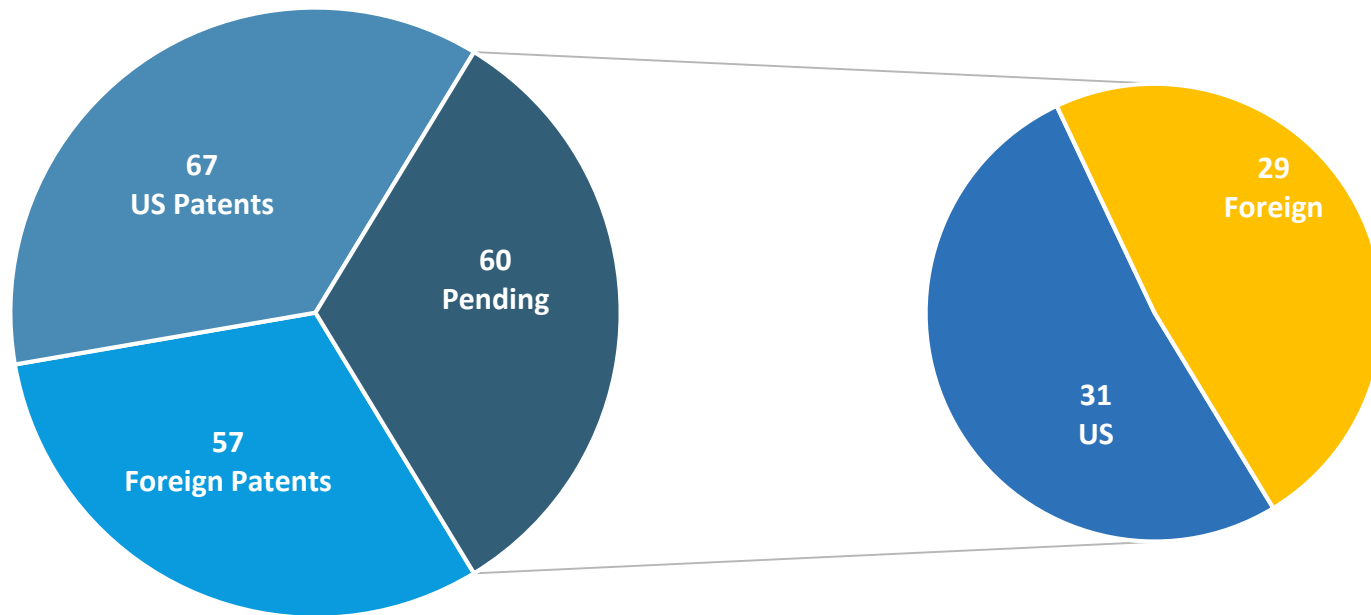
## Potential Benefits

- **Improved Efficiency**
  - *Higher transistor performance*
  - *Lower power consumption*
  - *Better reliability*
- **Lower cost**
  - *Reduced die size*
  - *Improved yield*
  - *Higher throughput*
- **Same benefits as a node shrink**

# Patent Portfolio

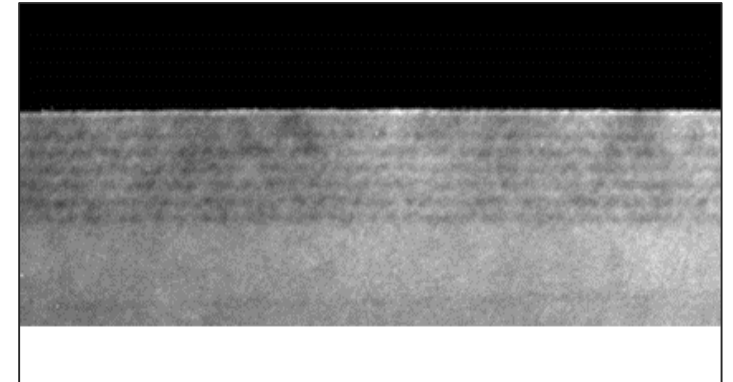


## Comprehensive 184 Patents Granted and Pending



*Core MST Method and Device*  
*MST Enabled Devices/Architecture*  
*Next-Gen Architectures using MST*

## Discoverable



These distinctive layers are visible on products using MST

## Extensive know-how

Extends life and value of patents

# Semiconductor Ecosystem



## Integrated Device Manufacturers



## Foundry



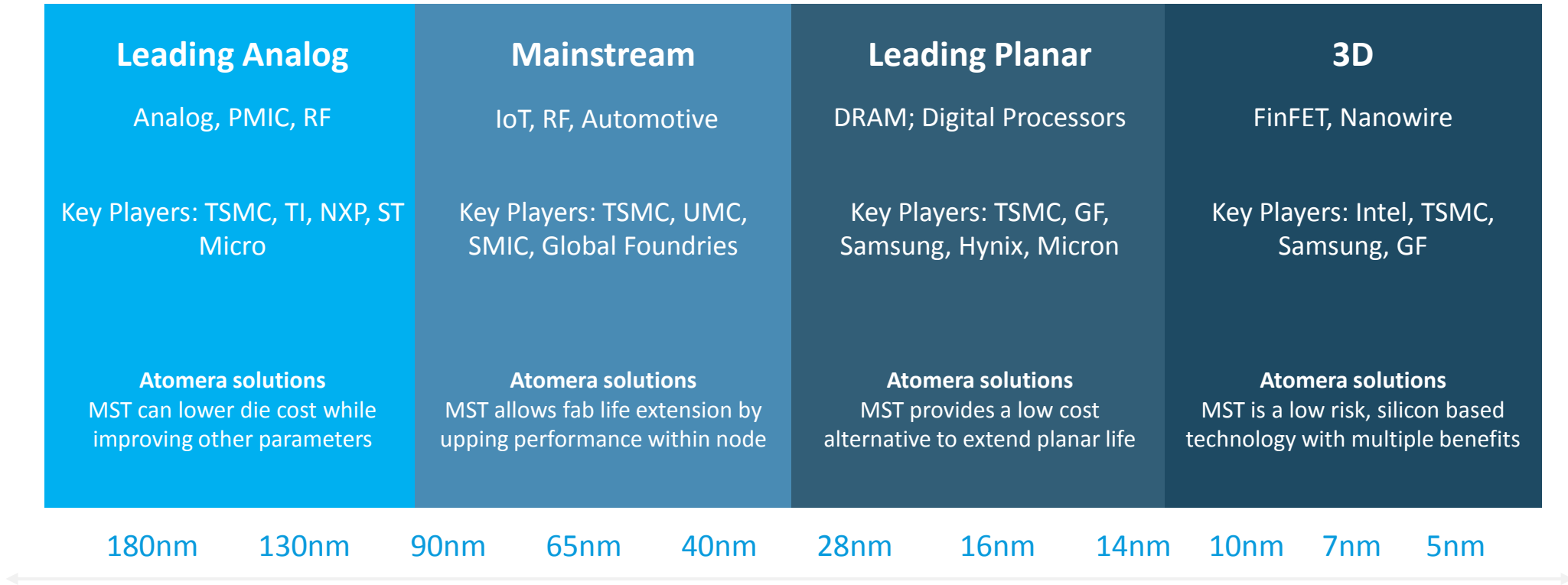
## Fabless



## Tool Suppliers



# Market Segment Strategy



*Engaged with customers in all four segments*



# Significant TAM



- \$7.0 billion total addressable market
  - at 2% royalty per wafer selling price<sup>2</sup>
- Top 20 wafer capacity leaders represent 84% of total industry capacity

Company	Type	Segment	Capacity <sup>1</sup>	% of Total
Samsung Semiconductor	IDM	Memory	31,185,000	14.6%
TSMC	Foundry	Logic	24,147,804	11.3%
Micron Technology	IDM	Memory	18,486,000	8.7%
SK Hynix	Foundry	Memory	18,360,000	8.6%
Toshiba Semiconductor	IDM	Memory	13,905,000	6.5%
GlobalFoundries	Foundry	Logic	9,720,000	4.6%
Intel	IDM	MCU	8,181,000	3.8%
Texas Instruments (TI)	IDM	Analog	7,450,548	3.5%
UMC (United Microelectronics)	Foundry	Logic	7,378,356	3.5%
STMicroelectronics	IDM	Analog	5,532,072	2.6%
SMIC	Foundry	Logic	5,193,000	2.4%
Infineon Technologies	IDM	Analog	4,509,708	2.1%
ON Semiconductor	IDM	Analog	4,493,904	2.1%
Powerchip Technology	Foundry	Logic	3,756,000	1.8%
TowerJazz	Foundry	Analog	3,572,820	1.7%
NXP Semiconductors	IDM	Analog	3,000,000	1.4%
Renesas Electronics	IDM	Other	2,833,488	1.3%
Japan Semiconductor Corp. (Toshiba)	Foundry	Analog	2,759,328	1.3%
Huahong Grace Semiconductor (HHGrace)	Foundry	Analog	2,556,000	1.2%
IM Flash	IDM	Memory	2,160,000	1.0%
<b>Top 20 Total</b>			<b>179,180,028</b>	<b>83.9%</b>
Other			34,419,972	16.1%
<b>Total Industry</b>			<b>213,600,000</b>	<b>100.0%</b>

1. Represents wafers per year (200mm equ).

2. 2016 Industry wafer ASP: \$1,637; target royalty 1-3%

Source: IC Insights Global Wafer Capacity 2017-2021 report

- **Atomera Licenses MST to Asahi Kasei Microdevices (AKM) – Sept 25, 2018**
  - *Japanese manufacturer of high end ICs for consumer, automotive and industrial*
  - *Division of Asahi Kasei Chemical Group*
  - *Long time partner of Atomera*
  - *First commercial licensee of Atomera's MST technology*
    - *Integration License*
  
- **Atomera Licenses MST to STMicroelectronics – October 2, 2018**
  - *One of the world's largest semiconductor companies*
    - *2017 revenue: \$8.3B*
  - *Leading IDM making solutions for Smart Driving, Internet of Things*
  - *Working with MST for less than two years*
  - *Integration License*

**AsahiKASEI**



# Customer Engagement & Revenue Model

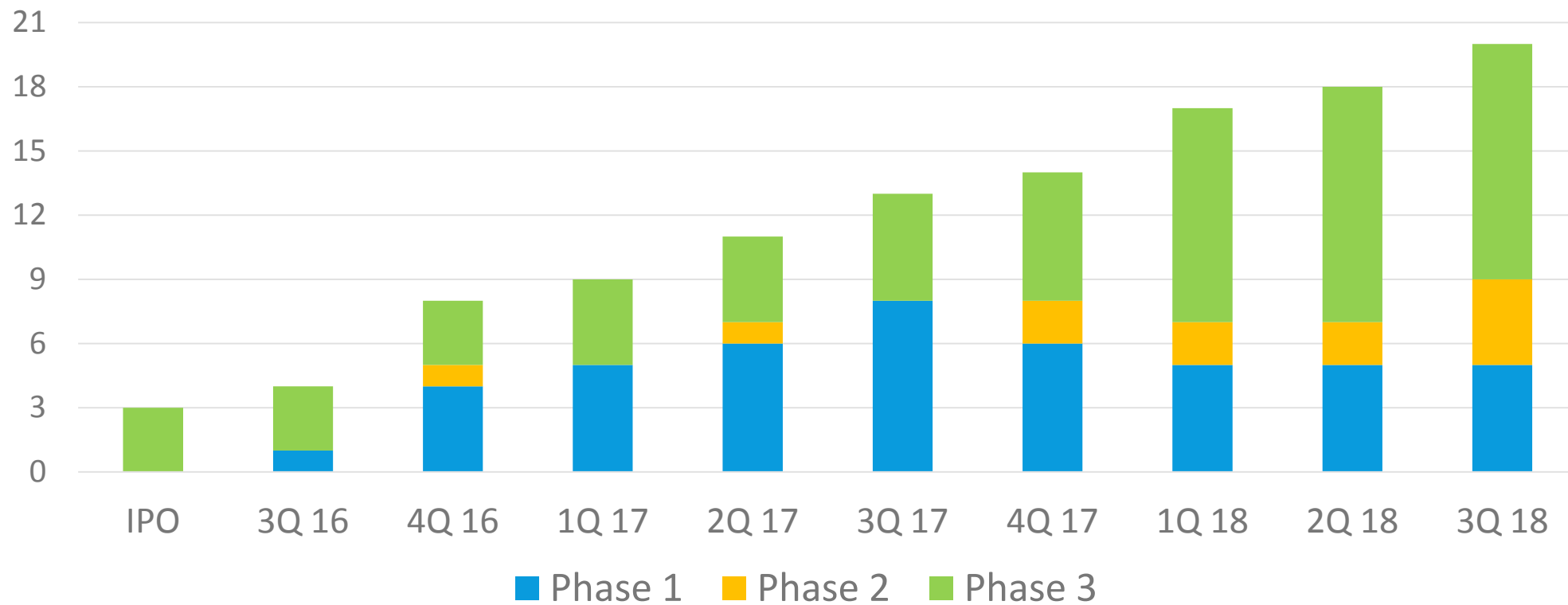


		Customer Wafer Manufacturing					
		Atomera MST® Deposition			Customer MST® Deposition		
Phase	1. Planning	2. Setup	3. Integration		4. Installation	5. Qualification	6. Production
Revenue Type			Engineering Services	Integration License	Manufacturing License	Distribution License	Royalties

# Growing Customer Pipeline



## Number of Customer Engagements



- 16 customers, 20 engagements
- Working with 50% of the world's top semiconductor makers\*

# Financial Overview and Capitalization



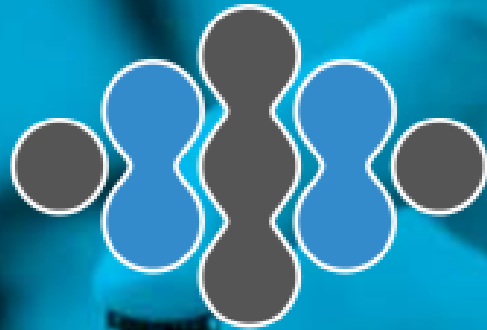
Non-GAAP P&L*			
	Q3 2018	Q2 2018	Q1 2018
<b>Revenue</b>	–	<b>96</b>	–
Cost of goods sold	–	113	–
<b>Gross profit</b>	–	<b>(17)</b>	–
<b>Operating expenses</b>			
Research and development	1,773	1,590	1,578
General and administrative	867	803	796
Selling and marketing	205	182	212
<b>Total operating expenses</b>	<b>2,845</b>	<b>2,575</b>	<b>2,586</b>
<b>Adjusted EBITDA (Non-GAAP)</b>	<b>(2,845)</b>	<b>(2,592)</b>	<b>(2,586)</b>

Summary Capitalization Table at 9/30/2018		Pro Forma for offering	
	Common Shares	WAEP	Common Shares
<b>Shares Outstanding</b>	12,408,525		15,033,525
<b>Warrants</b>	764,665	\$5.75	764,665
<b>Stock Options</b>	1,359,562	\$7.02	1,359,562
<b>FD SO</b>	14,532,752		17,157,752

Balance Sheet			
(in thousands)	Q3 2018	Q2 2018	Q1 2018
<b>Current assets</b>			
Cash and cash equivalents	9,957	12,254	14,547
Accounts receivable	75	96	–
Prepays and other current assets	227	296	401
<b>Total current assets</b>	<b>10,259</b>	<b>12,646</b>	<b>14,948</b>
Property and equipment, net	63	65	68
Deferred Offering Costs	73	–	–
Security deposit	13	13	13
<b>Total assets</b>	<b>10,408</b>	<b>12,724</b>	<b>15,029</b>
<b>Liabilities</b>			
Accounts payable	354	339	283
Accrued expenses	319	285	208
Accrued payroll and related	703	338	226
<b>Total liabilities</b>	<b>1,451</b>	<b>962</b>	<b>717</b>
<b>Shareholders' equity</b>			
Common stock	12	12	12
Additional paid-in capital	127,078	127,078	126,457
Accumulated deficit	(118,763)	(115,328)	(112,157)
<b>Total shareholders' equity</b>	<b>8,957</b>	<b>11,762</b>	<b>14,312</b>
<b>Total liabilities and shareholders' equity</b>	<b>10,408</b>	<b>12,724</b>	<b>15,029</b>

\* Adjusted EBITDA is a non-GAAP financial measure. A full reconciliation of GAAP and non-GAAP results is contained on slide 16

- Signed first two customer licenses with AKM and STMicroelectronics
- High margin, recurring revenue financial model
- Solid cash position
- Strong technology and patent position
- Ramping commercial license revenues



atomera

Thank You

# Financial Overview and Capitalization



Reconciliation of Non-GAAP to GAAP P&L*			
	Q3 2018	Q2 2018	Q1 2018
<b>Adjusted EBITDA (Non-GAAP)</b>	<b>(2,845)</b>	<b>(2,592)</b>	<b>(2,586)</b>
Add (subtract) the following items			
Interest income	48	50	47
Depreciation and amortization	(8)	(8)	(8)
Stock-based compensation	(630)	(621)	(545)
<b>Net loss (GAAP)</b>	<b>(3,435)</b>	<b>(3,171)</b>	<b>(3,092)</b>

Adjusted EBITDA is determined by taking net loss and eliminating the impacts of interest, taxes, depreciation, amortization, stockbased compensation, the change in fair value of derivative liabilities, and the gain on the extinguishment of debt. Our definition of adjusted EBITDA may not be comparable to the definitions of similarly titled measures used by other companies. We believe that this non-GAAP financial measure, viewed in addition to and not in lieu of its reported GAAP results, provides useful information to investors by providing a more focused measure of operating results. Here are providing a reconciliation to our publicly reported GAAP income statement.