Investor Presentation

December 2020

Safe Harbor

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 disclosed in the section "Risk Factors" included in our Prospectus Supplement filed pursuant to Rule 424(b)(5)with the SEC on September 2, 2020. 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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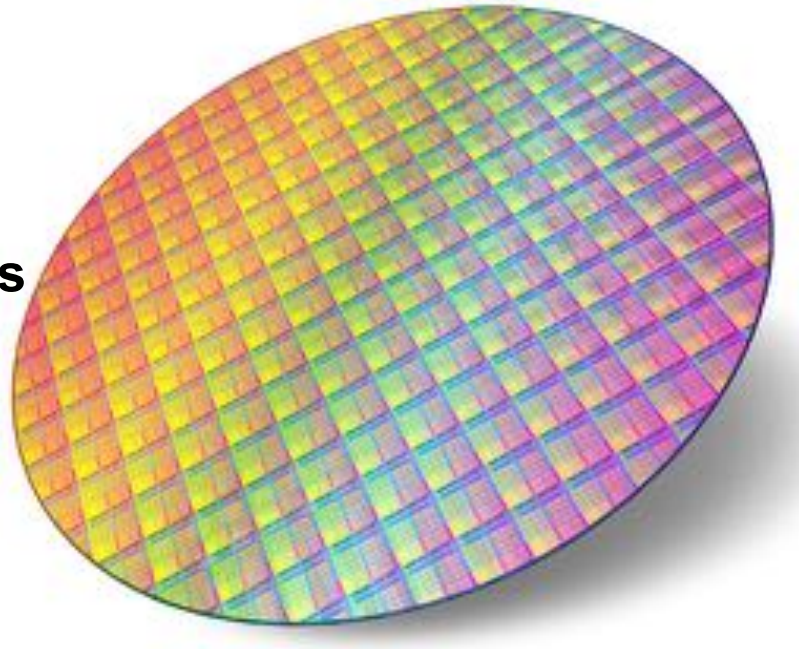
Investment Overview

- **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 technology licensing business**
  - Robust and growing patent portfolio
- **Engaged with 50% of world's top semiconductor makers**
- **Licenses with three companies**
- **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



Target Customers & Partners

Integrated Device Manufacturers

SAMSUNG · Micron · TOSHIBA · intel

Texas Instruments · ST · Infineon · ON

RENESAS · NXP · AsahiKASEI · SK hynix

Foundry

tsmc · GLOBAL FOUNDRIES · UMC · SMIC

HHGrace · DB HiTek · TOWERJAZZ · MagnaChip

Fabless

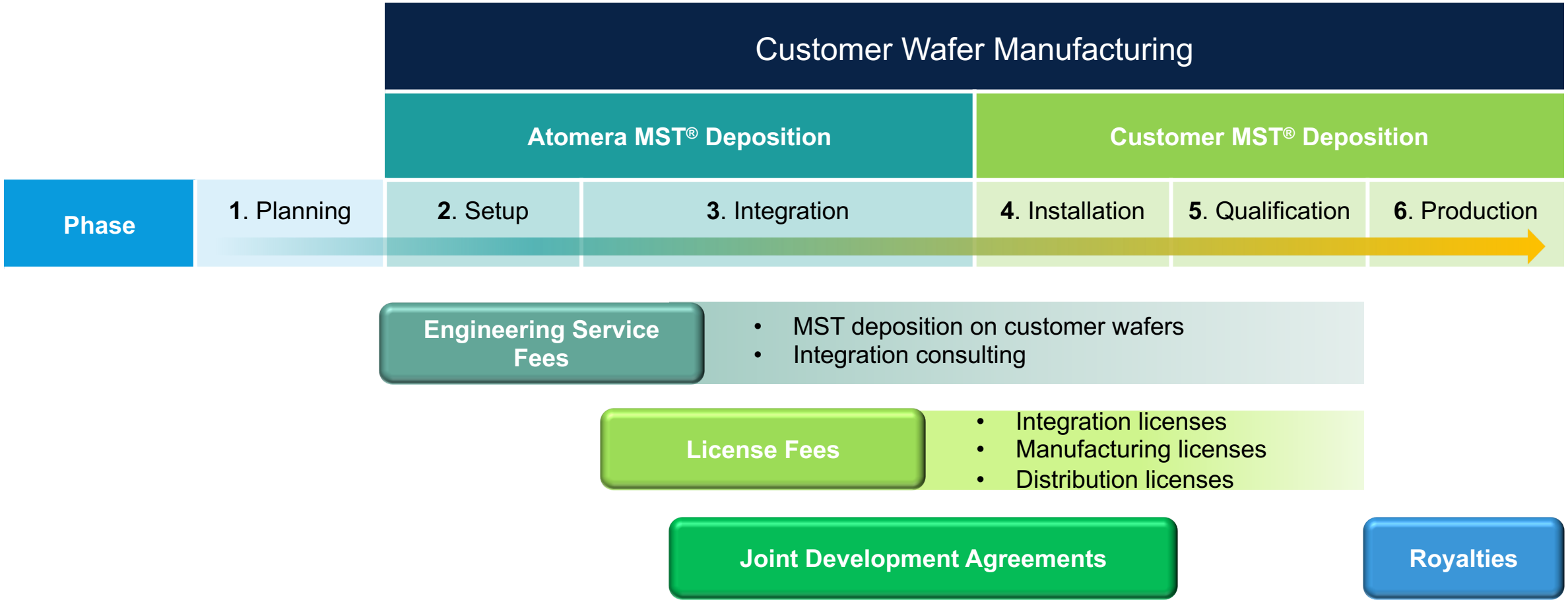
BROADCOM · MARVELL · maxim integrated · MICROCHIP

SKYWORKS · QUALCOMM · XILINX · qorvo

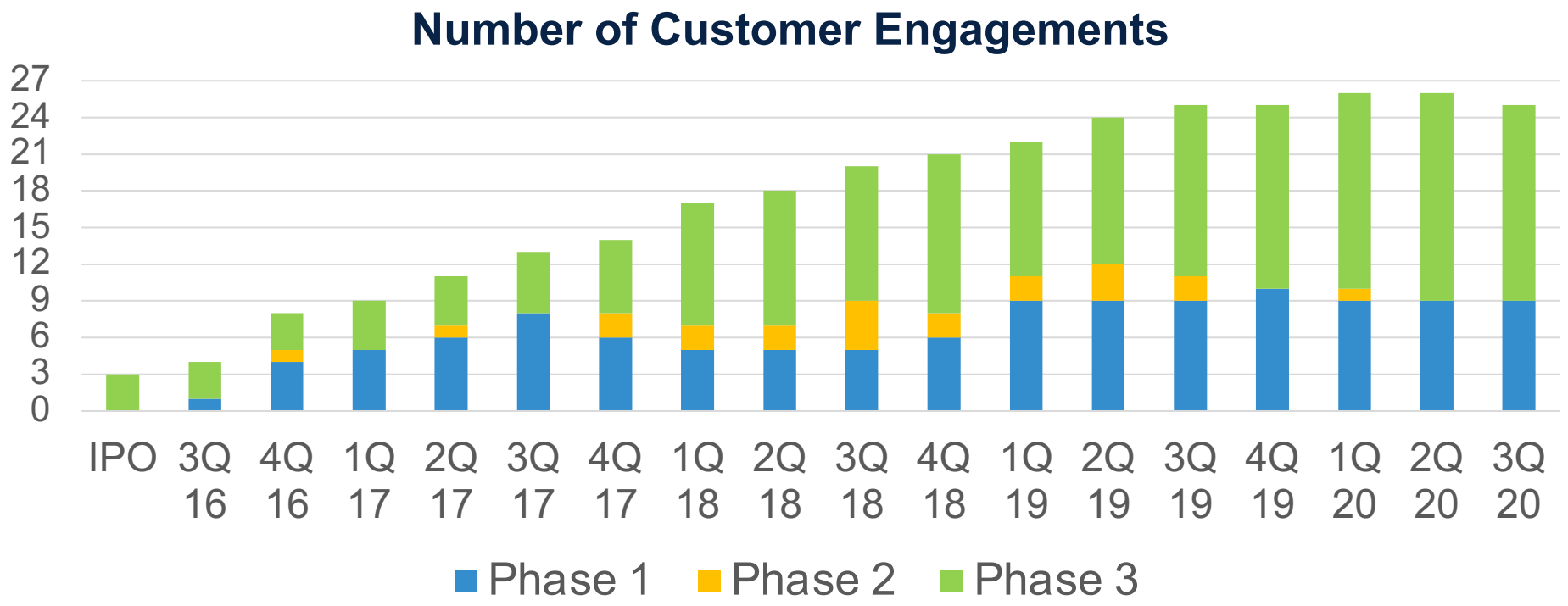
Tool Suppliers (Partners)

ASM · APPLIED MATERIALS · KOKUSAI SEMICONDUCTOR EQUIPMENT CORPORATION · SYNOPSYS

Customer Engagement & Revenue Model



Customer Pipeline



- 19 customers, 25 engagements
- Working with 50% of the world's top semiconductor makers*

* At least 10 of the top 20 (IC Insights, McClean Report 2019)

Royalty Opportunity

- **~370 wafer fabs operating worldwide**
- **Adoption of MST in one fab can make Atomera profitable from royalties alone**
  - 2020 non-GAAP OPEX guidance is $12.00 - $12.25M

Example 1 | Worldwide Average Fab	
Monthly Fab Capacity[1] *(wafers/month)*	49,000
Industry average wafer ASP - 2018	$1,136
Annual Revenue Potential[2]	**$13M**
Annual Revenue at 50% of ramp[2]	$6.7M

Example 2 | Leading Foundry, 28nm Fab	
Monthly Fab Capacity *(wafers/month)*	80,000
Industry average 28nm wafer ASP	$3,000
Annual Revenue Potential[2]	**$58M**
Annual Revenue at 50% of ramp[2]	$29M

1. Represents wafers starts per month (200mm equiv) – 217.3M starts in 370 fabs
2. Assumes 2% royalty rate

Source: IC Insights Global Wafer Capacity 2019-2023 report, McClean Report 2019

Financial Review

	FY 2019	Q1 '20	Q2 '20	Q3 '20	YTD 2020
GAAP Results					
Revenue	**$0.53M**	**$0.06M**	$ -	$ -	**$0.06M**
Gross Profit	$0.28M	$0.05M	$ -	$ -	$0.05M
Operating Expense					
R&D	$7.7	$2.1M	$2.1M	$2.0M	$6.2M
G&A	$5.2	$1.4M	$1.5M	$1.3M	$4.2M
S&M	$1.0	$0.2M	$0.2M	$0.2M	$0.6M
Total Operating Expense	**$13.9M**	**$3.7M**	**$3.8M**	**$3.6M**	**$11.1M**
Net Loss	($13.3M)	($3.6M)	($3.8M)	($3.6M)	$11.0M
Loss Per Share	*($0.84)*	*($0.22)*	*($0.21)*	*($0.19)*	*($0.62)*
Reconciliation between GAAP & Non-GAAP					
Net Loss (GAAP)	**($13.3M)**	**($3.6M)**	**($3.8M)**	**($3.6M)**	**($11.0M)**
Stock-Based Compensation	$2.9M	$0.6M	$0.8M	$0.8M	$2.2M
Warrant Modification	-	$0.1M	-	-	$0.1M
Other income (expense)	($0.3M)	-	-	-	-
Adjusted EBITDA (Non-GAAP)*	**($10.7M)**	**($2.9M)**	**($3.0M)**	**($2.7M)**	**($8.6M)**

Balance Sheet 09/30/20	
Cash	**$25.30M**
Debt	**-**
Shares Outstanding	**21.0M**

** Adjusted EBITDA is a non-GAAP financial measure. A full reconciliation of GAAP and non-GAAP results is contained in our Q3 press release. Some totals reflect rounding.*

Summary

- High margin, recurring revenue financial model
- Strong technology and patent position
- Traction with many top industry players and growing licensee base
- Ramping commercial license revenues

Thank You