

VERSUM MATERIALS

INVESTOR MEETINGS

September 2016



FORWARD-LOOKING STATEMENTS

This presentation and materials Air Products and Versum have filed or will file with the SEC contain, or will contain, certain statements regarding business strategies, market potential, future financial performance, future action, results and other matters which are “forward-looking” statements within the meaning of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the Private Securities Litigation Reform Act of 1995. The words “believe,” “expect,” “anticipate,” “project,” “estimate,” “budget,” “continue,” “could,” “intend,” “may,” “plan,” “potential,” “predict,” “seek,” “should,” “will,” “would,” “objective,” “forecast,” “goal,” “guidance,” “outlook,” “effort,” “target” and similar expressions, among others, generally identify forward-looking statements, which speak only as of the date the statements were made. Additionally, forward-looking statements include, but are not limited to: statements about business strategies and outlook for Versum, expectations as to Versum’s future sales, estimates regarding Versum’s capital requirements and needs for additional financing, estimates of Versum’s expenses, future revenues and profitability, and estimates of the size of the market for Versum’s products, and estimates of the success of other competing technologies that may become available. These forward-looking statements are based on management’s reasonable expectations and assumptions as of the date of this presentation. Actual performance and financial results may differ materially from projections and estimates expressed in the forward-looking statements because of many factors not anticipated by management, including, without limitation, weakening of global or regional economic conditions; future financial and operating performance of major customers; unanticipated contract terminations or customer cancellations of sales; the impact of competitive products and pricing; unexpected changes in raw material supply and markets; Versum’s failure to successfully develop and market new products and optimally manage product life cycles; Versum’s inability to protect and enforce its intellectual property rights; failure to appropriately manage process safety and product stewardship issues; changes in laws and regulations or political conditions; global economic and capital markets conditions, such as inflation, interest and currency exchange rates; delays in or inability to obtain requisite regulatory approvals and changes in capital market conditions that may affect the separation and the execution thereof, including the timing of the separation; business or supply disruptions; security threats, such as acts of sabotage, terrorism or war, weather events and natural disaster; increased competition; changes in relationships with our significant customers and suppliers; unanticipated business disruptions; Versum’s ability to predict, identify and interpret changes in consumer preferences and demand; uncertainty regarding the availability of financing to us in the future and the terms of such financing; disruptions in Versum’s information technology networks and systems; unexpected safety or manufacturing issues; costs and outcomes of litigation or regulatory investigations; the impact of management and organizational changes; the success of productivity and operational improvement programs; the timing, impact, and other uncertainties of future acquisitions or divestitures; the impact of changes in environmental, tax or other legislation and regulations in jurisdictions in which Versum and its affiliates operate; and relocation of our corporate headquarters and key activities and other risk factors described in “Risk Factors,” “Business” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in the amended Form 10 registration statement referred to below. Air Products and Versum disclaim any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements contained in this document to reflect an change in assumptions, beliefs or expectations or any change in events, conditions, or circumstances upon which any such forward-looking statements are based, except as required by applicable law.

Versum Materials LLC filed an amended Form 10 registration statement with the United States Securities and Exchange Commission on August 25, 2016. The Form 10 is not yet effective and, as is customary, will be updated to provide additional information regarding capital structure, pro forma unaudited results and other matters as they become available.

AIR PRODUCTS HAS ANNOUNCED ...

- “Our current intention to separate our electronic materials division (EMD) through a tax-free spin-off to our shareholders as Versum Materials.”
 - **Separation** of EMD from the rest of Air Products is on track and expected by the end of September 2016
 - **Spin-off** of shares of Versum Materials to our shareholders is subject to;
 - Typical regulatory approvals and approval by Air Products’ Board
 - Currently targeting early October 2016 for Versum Materials to begin “regular way” public company trading
 - Currently expect a distribution ratio of 1 share of Versum Materials for every 2 shares of Air Products

VERSUM MATERIALS

BEST IN CLASS ELECTRONIC MATERIALS COMPANY



Solid growth

High margins

Low capital intensity

Strong free cash flow



Leadership positions in a profitable and complex semiconductor materials industry



Strong technology, commercial and operations capabilities



Global infrastructure



Compelling growth platforms with sustainable competitive advantage



Strong financial performance and cash flow generation



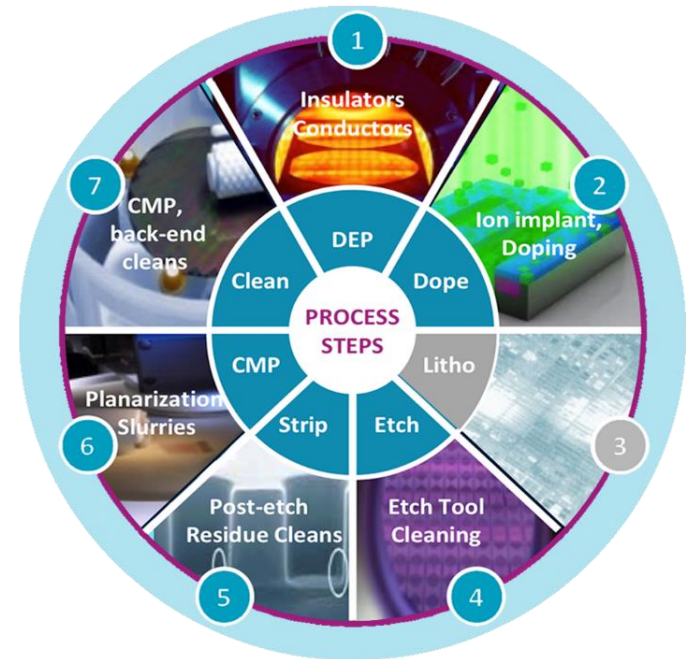
Experienced management team with proven track record

PROFITABLE GROWTH PLATFORM

FOCUSED PURE PLAY WITH STRONG PORTFOLIO AND CAPABILITIES

Versum Materials – The Materials Partner Of Choice Of The Semiconductor Industry

- Focus on the semiconductor (IC) materials space where materials provide low cost in use/high value in use
- Leverage technology leadership, global scale, quality and reliability capabilities, and partnership with customers and OEMs to develop and commercialize the next generation technologies which will advance the industry
- Expand into adjacent segments within IC

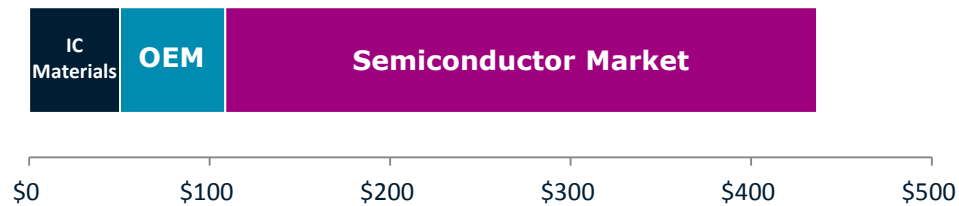


Versum Materials Participates In Six Of Seven Key Semiconductor Process Steps

VERSUM MATERIALS AREA OF FOCUS

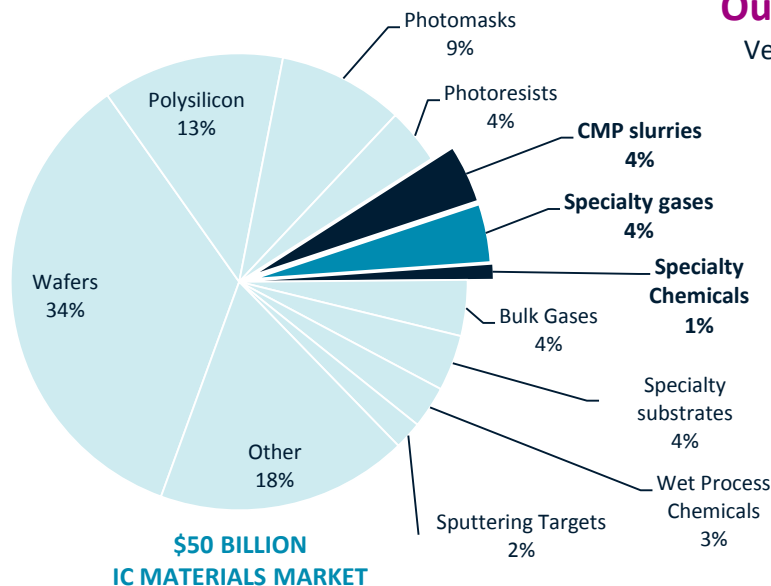
PARTICIPATION FOCUSED ON THE IC MATERIALS INDUSTRY

\$450 B SEMICONDUCTOR VALUE CHAIN



Our Focus ~ \$5B

Versum Participates in Only ~1% of the overall Semiconductor Market^(a)



OUR BUSINESS

- Critical competencies in molecular design, formulation expertise and ultra high purity
- Changing semiconductor industry dynamics reducing cyclicity and lowering volatility
- 80% of sales to semiconductor industry in both the memory and logic segments
- Increased importance of materials in next generation nodes driving growth
- Strong customer intimacy with strong product development partnerships with customers and OEMs
- Strategically located assets in Asia
- Advanced Materials revenue growth driven by new product and new applications

VERSUM MATERIALS BY THE NUMBERS

\$1.0
billion in sales

1,900
employees

10+
countries

Top 5
industry supplier

3+
decades in business

250+
customers

10-14%
R&D spend in AM as %
of sales

10+
production
facilities

3+
core industries
served

VERSUM MATERIALS

A PORTFOLIO OF WORLD CLASS BUSINESSES

Sales:	\$954
EBITDA:	\$344
EBITDA Margin:	36.0%
Op Income:	\$289
Op Margin:	30.3%

Materials
74% of sales

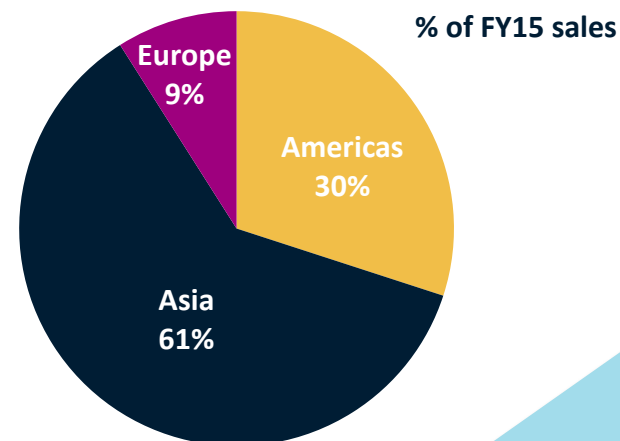
Delivery Systems
26% of sales

Solid growth

High margins

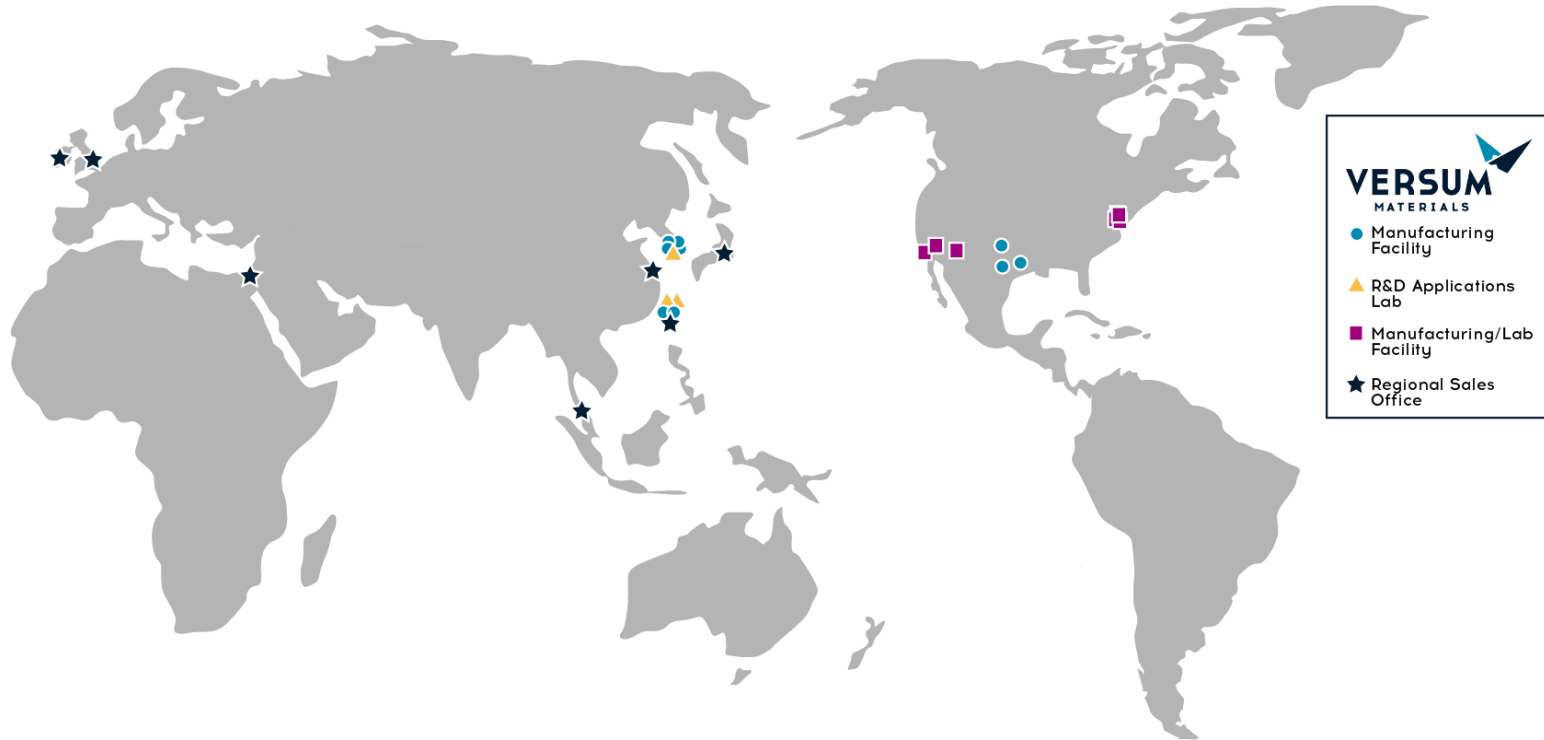
Low capital intensity

Strong free cash flow



GLOBAL INTRASTRUCTURE

SCALE AND BREADTH TO SUPPORT CUSTOMERS GLOBALLY

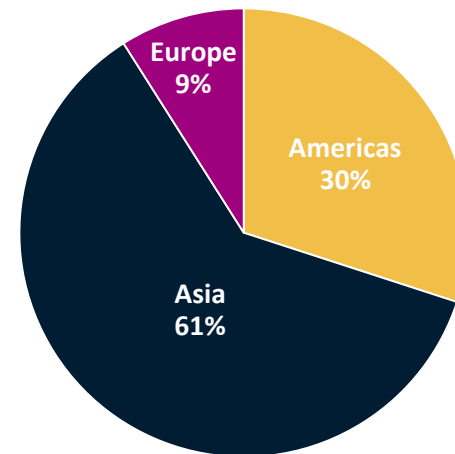
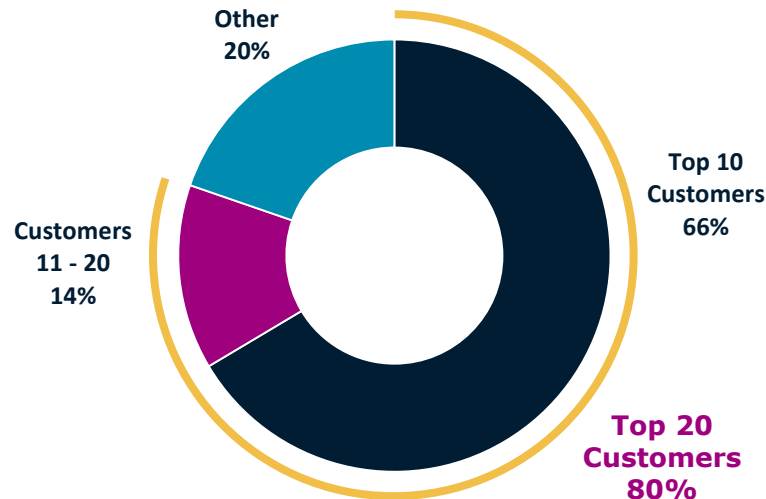


- Well-invested global infrastructure
- In-region flexible manufacturing capabilities
- Local technical support
- Collaborative product development with customers
- 1,900 employees
- 14 production facilities
- 6 R&D + technical centers

POSITIONED WITH THE KEY PLAYERS

HIGH QUALITY GLOBAL CUSTOMER BASE

VERSUM MATERIALS



- Serve semiconductor industry leaders with broad and diverse products portfolio
- Growth driven by partnerships requiring innovation capabilities, collaboration, and trust
- Many products are Process of Record (POR) in customer manufacturing process

CREATING VALUE BY MANAGING COMPLEXITY

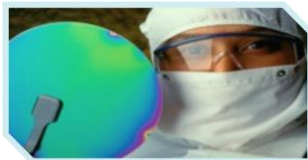
VERSUM RECOGNIZED AS A VALUED SUPPLIER



VERSUM MATERIALS

DIVERSIFIED PORTFOLIO FOCUSED ON TECHNOLOGY DRIVEN SEMICONDUCTORS

SEGMENTS



MATERIALS

FOCUS AREAS

- Advanced Materials
- Process Materials

KEY PRODUCTS

- Advanced Deposition Materials for Thin Films
- CMP Slurries and Post CMP Cleans
- Formulated Products for Surface Prep & Clean
- Deposition
- Clean & Etch
- Doping
- Laser



**DELIVERY SYSTEMS
& SERVICES**

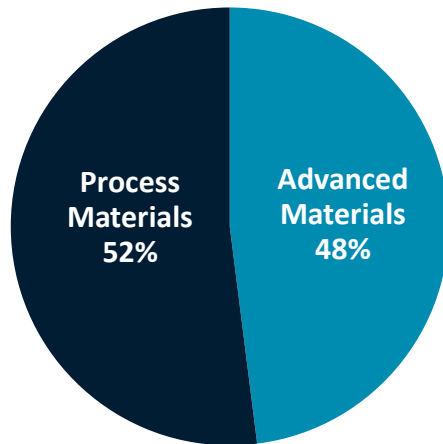
- Equipment
- Turnkey Systems
- Services

- Specialty Gases Delivery
- Chemicals Delivery
- CMP Slurry Delivery
- Systems Technical Support
- Installation Projects
- On site Materials Management Services



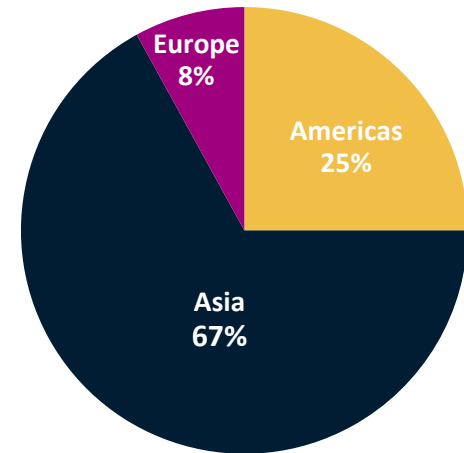
MATERIALS SEGMENT

DIVERSIFIED PORTFOLIO FOCUSED ON TECHNOLOGY DRIVEN SEMICONDUCTORS



Sales: \$743
Adj Op Income: \$214
Margin: 28.7%
Adj EBITDA: \$263
Margin: 35.4%

Sales by business unit and destination



- Integrated provider of leading edge specialty materials, 80% to the semiconductor market
- Advanced Materials - 80% of portfolio is based on proprietary or patent-protect positions
- Process Materials - High-purity gases & chemicals for cleaning, etching, doping & film deposition
- 980 employees, 11 production and 6 R&D facilities serving more than 250 customers

Solid growth

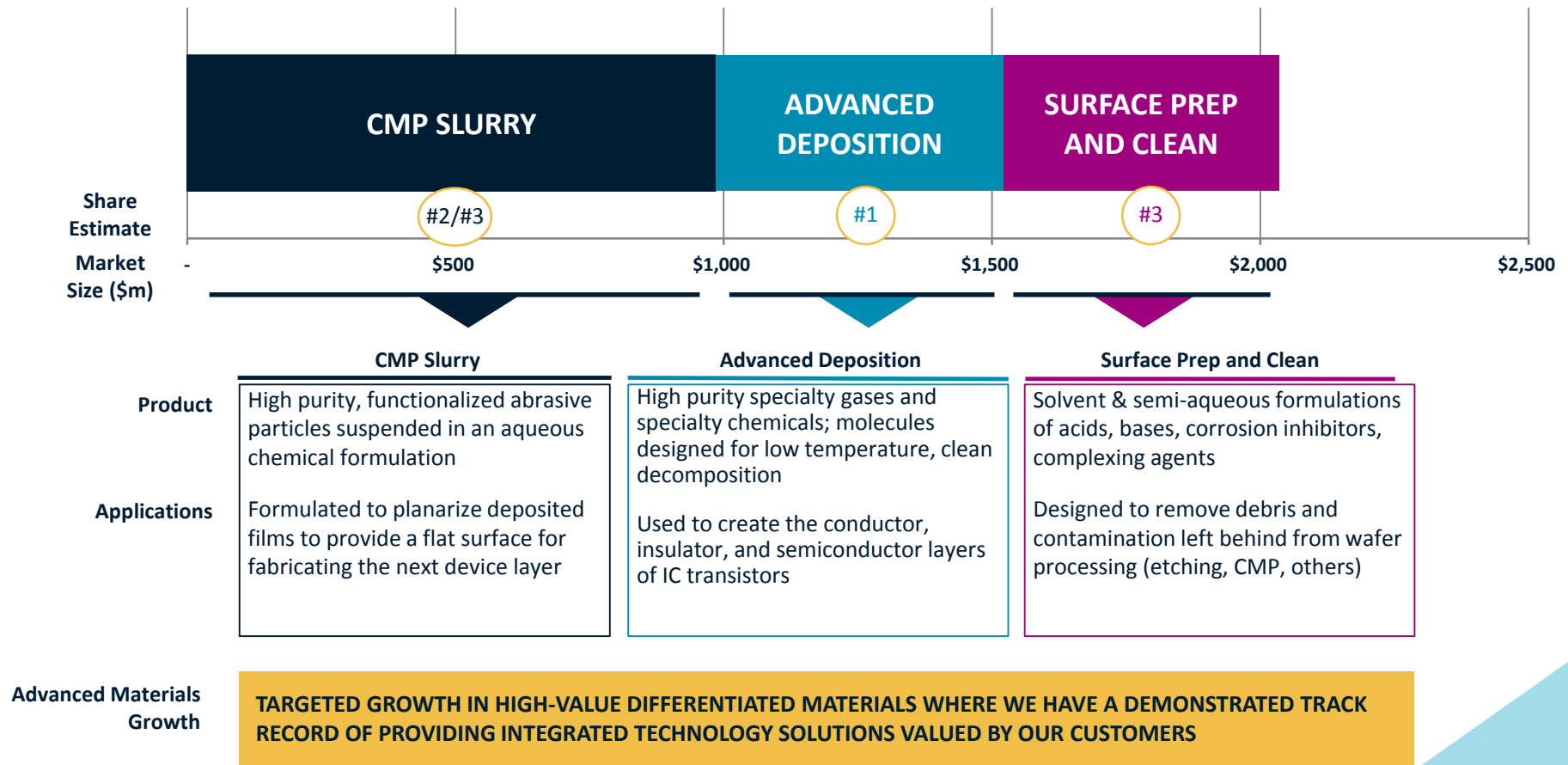
High margins

Low capital intensity

Strong free cash flow

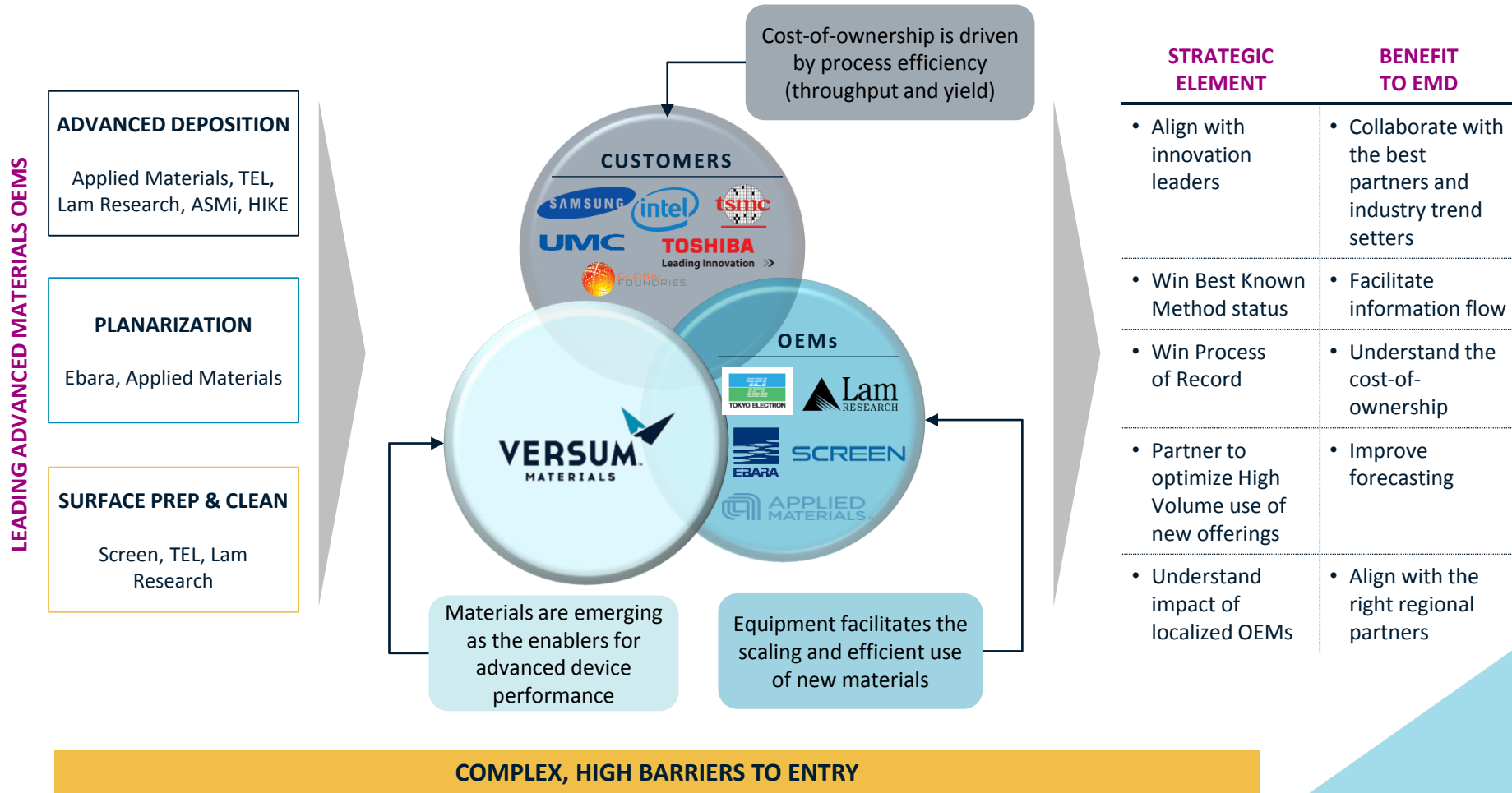
ADVANCED MATERIALS

\$356M IN SALES ACROSS A \$2BN DIFFERENTIATED MATERIALS SEGMENT FOCUSED ON INNOVATION TO MEET THE INDUSTRY'S NEXT-GENERATION REQUIREMENTS



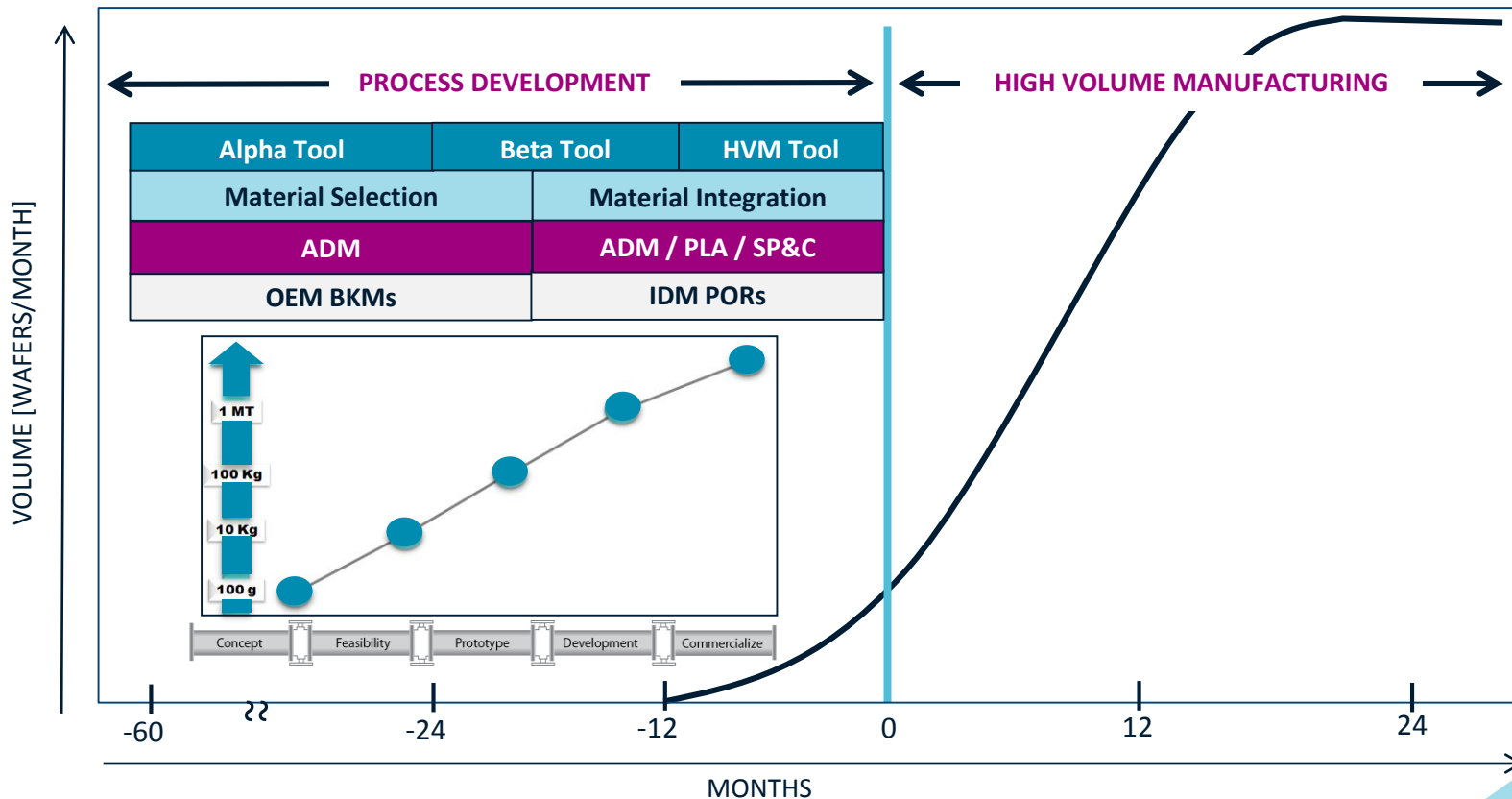
PARTNERSHIPS CRITICAL TO SUCCESS

COMMITMENT, PARTNERSHIP AND TECHNOLOGY CRITICAL TO ADDING VALUE



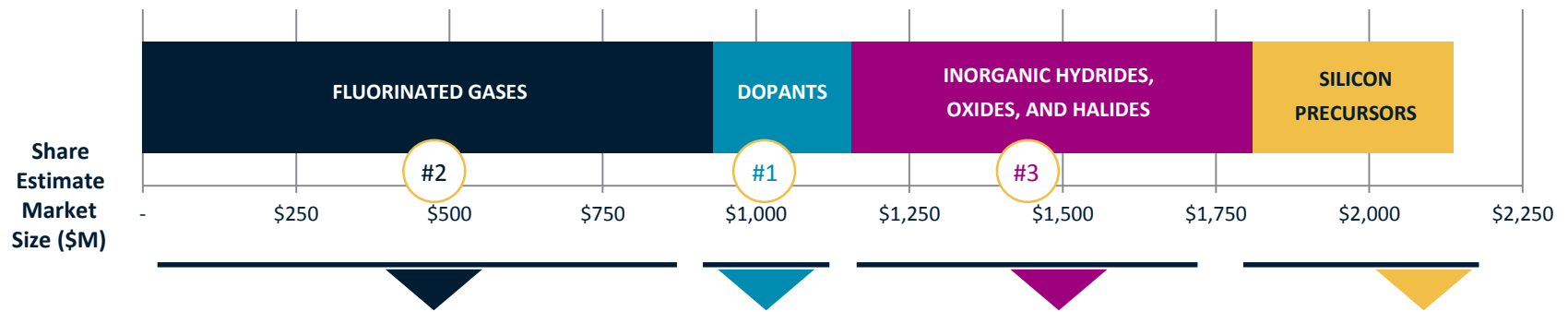
TIMELINE FOR INTRODUCING NEW PRODUCTS FOR IC MANUFACTURING

TO SUSTAIN GROWTH VERSUM MATERIALS INVESTS MORE THAN 10% OF ITS ADVANCED MATERIALS SALES INTO RESEARCH AND DEVELOPMENT



PROCESS MATERIALS

\$387M WITH TEN PRODUCTS REPRESENTING 80% OF REVENUE FOCUSED ON GLOBAL DISTRIBUTION CAPABILITIES, COMPETITIVE COST, PURITY, QUALITY AND RELIABILITY



Market Dynamics 2014-2020

Fluorinated Gases

Competitors rebalanced supply/demand given PV over capacity overinvestment and low profitability.

Growth in memory, especially 3D VNAND, driving significant increase in demand of key products

Industry debottlenecking to support increased demand.

Dopants

Few competitors due to high barriers to entry into specialty gases (sensitive and difficult to handle products)

Forecast new demand drivers for hydrides to improve IC speed

Inorganic Hydrides, Oxides, and Halides

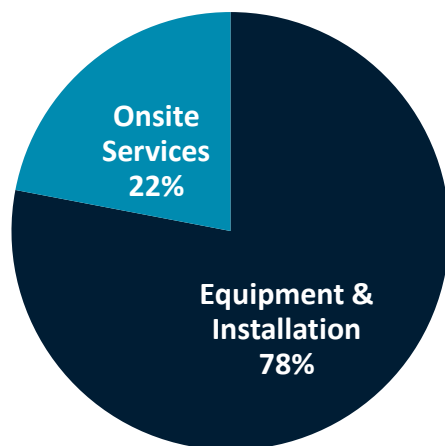
Regional players source crude commodities and purify or distribute purified electronic grade products

Process Materials Growth

IMPROVED OUR COST COMPETITIVENESS AND IN-REGION SUPPLY INFRASTRUCTURE TO DEFEND/GROW SHARE AND LEVERAGE OUR GLOBAL SUPPLY CHAIN AND SAFETY, QUALITY AND RELIABILITY CAPABILITIES TO GROW WITH OUR CUSTOMERS

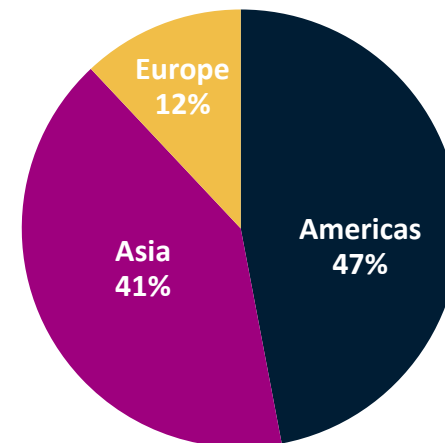
DELIVERY SYSTEMS & SERVICES SEGMENT

DIVERSIFIED PORTFOLIO FOCUSED ON TECHNOLOGY DRIVEN SEMICONDUCTORS



Sales: \$266
Adj Op Income: \$ 49
Margin: 18.5%
Adj EBITDA: \$ 57
Margin: 21.6%

Sales by business unit and destination



- **Gas & Chemical Delivery Systems** – sale of equipment critical to managing delivery of key materials into the semiconductor process
- **Turnkey & Installation** – of materials delivery systems
- **On-Site Services (MEGASYS)**
 - On-going on-site inventory management of critical gases & chemicals
 - More than 450 people servicing over 50 customer locations

Solid growth

High margins

Low capital intensity

Strong free cash flow

DELIVERY SYSTEMS AND SERVICES

COMPETITIVE ADVANTAGE DRIVERS



**COMPLETE PORTFOLIO OF
EQUIPMENT & SERVICE SOLUTIONS**



GLOBAL MANUFACTURING CAPABILITIES



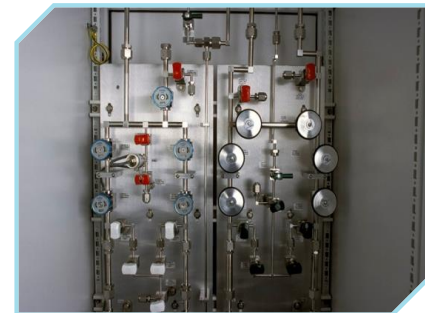
**WORLDWIDE LEADER IN THE SUPPLY
OF EQUIPMENT AND SERVICES**



**COST EFFECTIVE EQUIPMENT
& SERVICE SOLUTIONS**



**EXTENSIVE GLOBAL EXPERIENCE
PROVIDING EQUIPMENT &
SERVICES TO 300 MM FACILITIES**

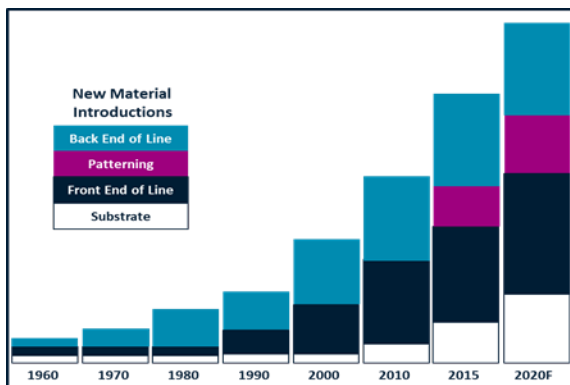


**DESIGN EXCELLENCE, FOCUSED
ON SAFETY, RELIABILITY & PURITY**

SEMICONDUCTOR INDUSTRY SUMMARY

- **Growing technology driven industry that enables human advancement**
 - Computation / Mobility / Big Data / Internet of Things (IoT)
- **Complexity of chip architectures driving materials innovation and growth**
 - New Materials required to enable next generation nodes
 - Increased processing steps changing the number of products and volume requirements
- **Substantial industry capital spending across the cycles**
- **Significant industry concentration and growth in Asia**
- **Managing complexity and collaboration is critical to success in Materials**

GROWTH SUPPORTED BY NEED FOR NEW MATERIALS



Adapted with permission from ASM ISS 2016

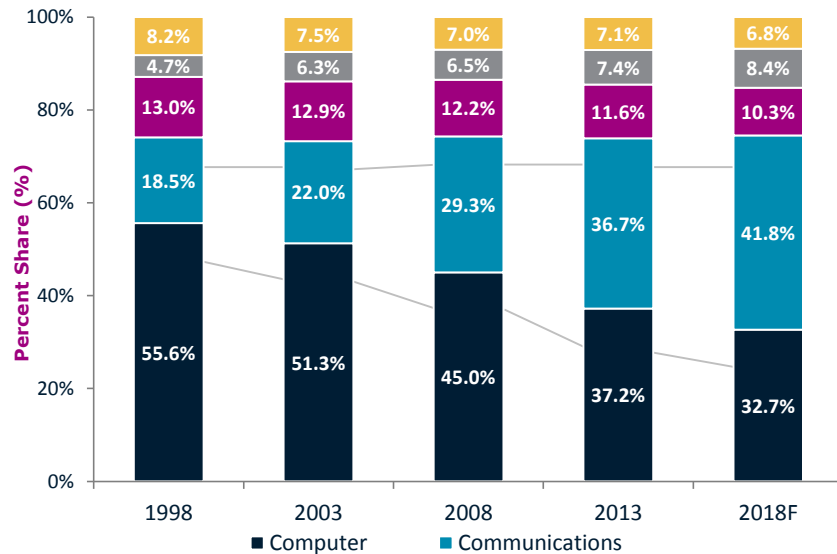
KEY GROWTH METRICS – AS OF AUG 2016

	2013	2014	2015	2016	2017	2018
Wafer Equipment (Gartner, CY)	-8%	16%	0%	-3%	8%	9%
MSI Growth (Hilltop Economics, FY)	2%	8%	7%	-2%	4%	9%

SEMICONDUCTOR INDUSTRY IS CHANGING

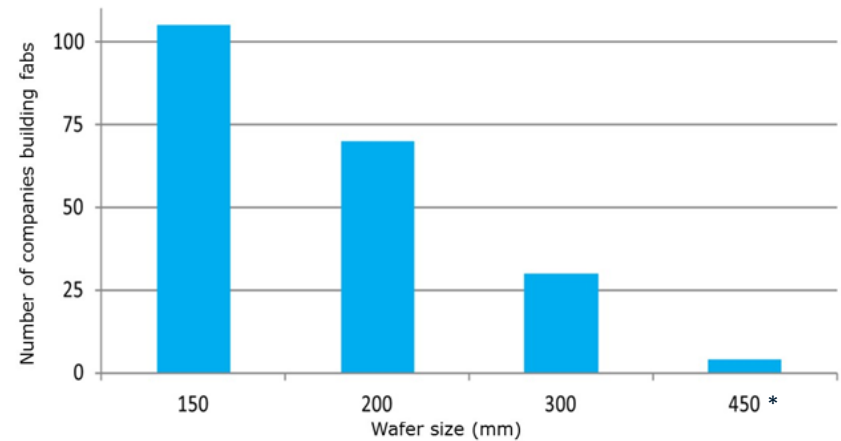
SHIFTING GROWTH DRIVERS (MOBILITY & IOT) & INDUSTRY CONCENTRATION

IC MARKET SHARE BY SYSTEM TYPE (%)



Source: IC Insights.

CONCENTRATION OF IC SUPPLIERS



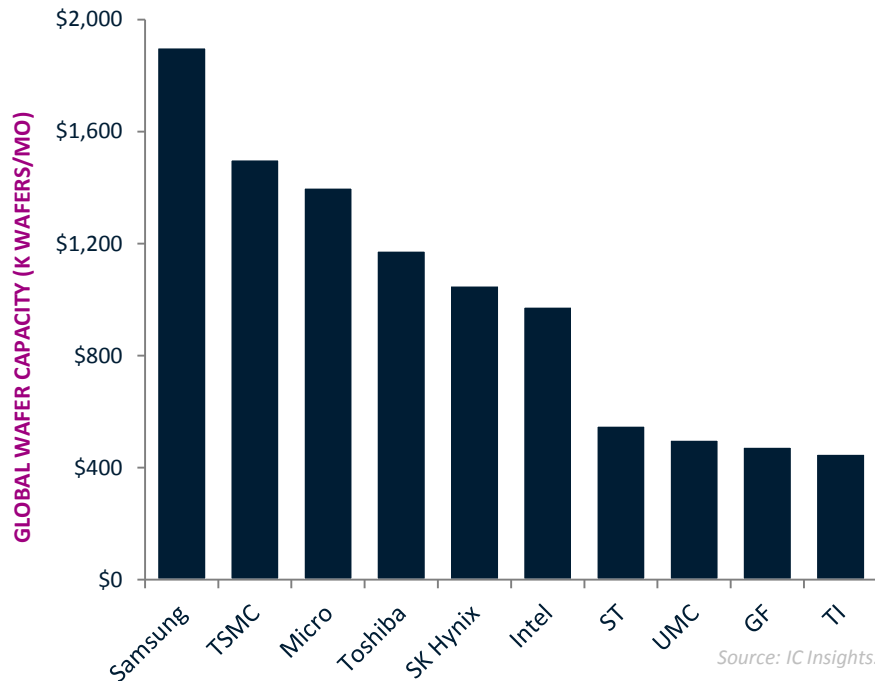
* Projected
Source: SEMI

- Move towards consumer products driven demand
- Scale and concentration in leading edge semiconductor manufacturers

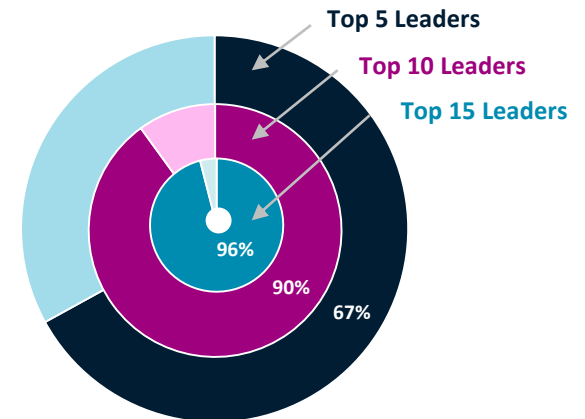
A CONCENTRATED INDUSTRY

CRITICAL TO HAVE STRONG RELATIONSHIPS WITH INDUSTRY LEADERS

SEMICONDUCTOR INDUSTRY CONCENTRATION



GLOBAL SHARE OF 300MM WAFER CAPACITY



3.8 million 300mm Wafers per Month Installed (as of 12/2013)

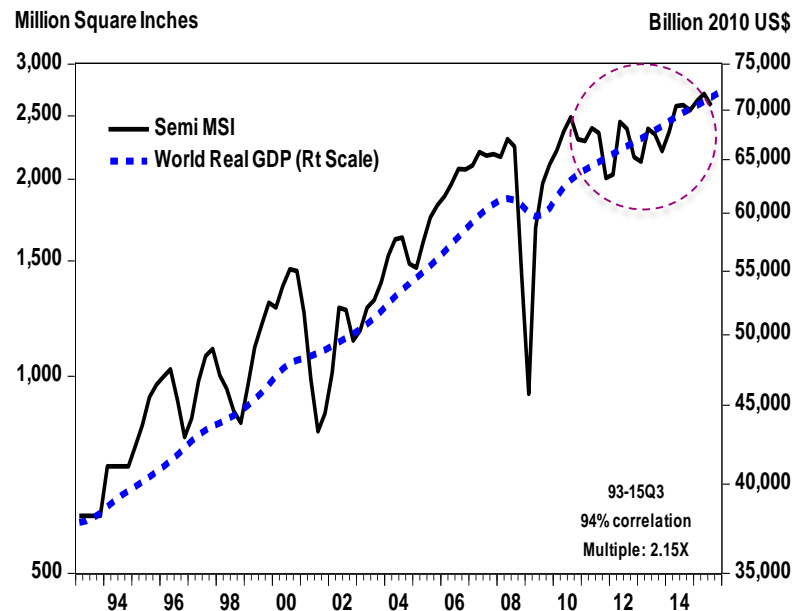
- Top 10 WW capacity leaders represent 72% of all IC output (area basis)
- Only 29 players operate 300mm fabs; only 15 operate more than one

INDUSTRY WITH REDUCED CYCLICALITY

MATERIALS DEMAND BENEFITTING FROM LESS VARIABILITY

- **Changing industry dynamics are reducing cyclicality**
 - Growth of mobility and Internet-of-Things (IoT) more consumer goods/GDP driven
 - Concentration of semiconductor producers has increased investment discipline and lowered over supply dynamics
- **Materials are more critical to the industry's ability to innovate for next generation nodes**

SEMICONDUCTOR DEMAND CORRELATED TO GDP DRIVING DECREASING VOLATILITY

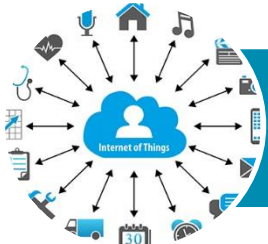


MACRO TRENDS

DRIVING SEMICONDUCTOR AND MATERIALS GROWTH



Mobility

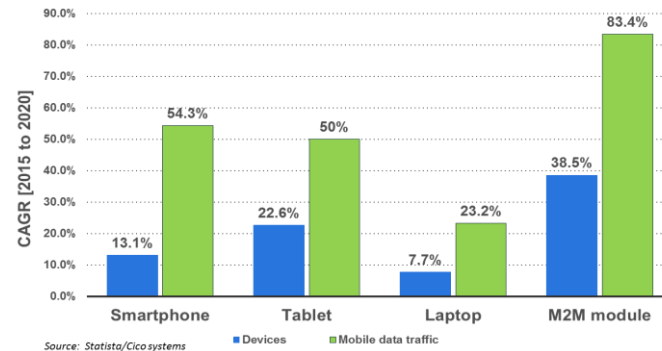


Connectivity

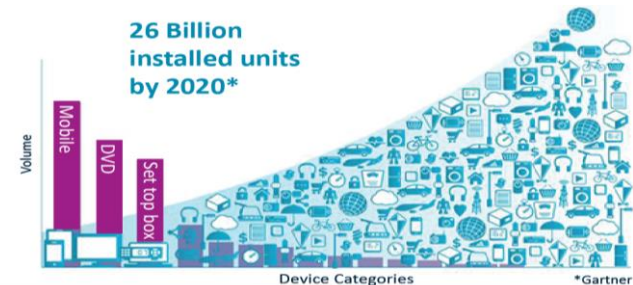


Big Data

GROWTH IN MOBILE DEVICES AND DATA

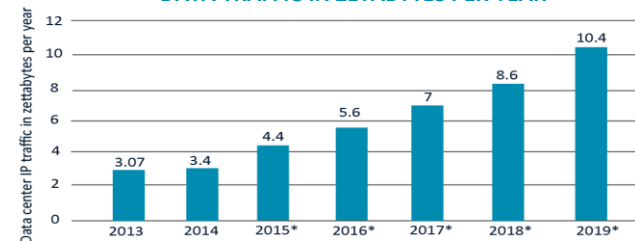


26 Billion installed units by 2020*



Source: ARM

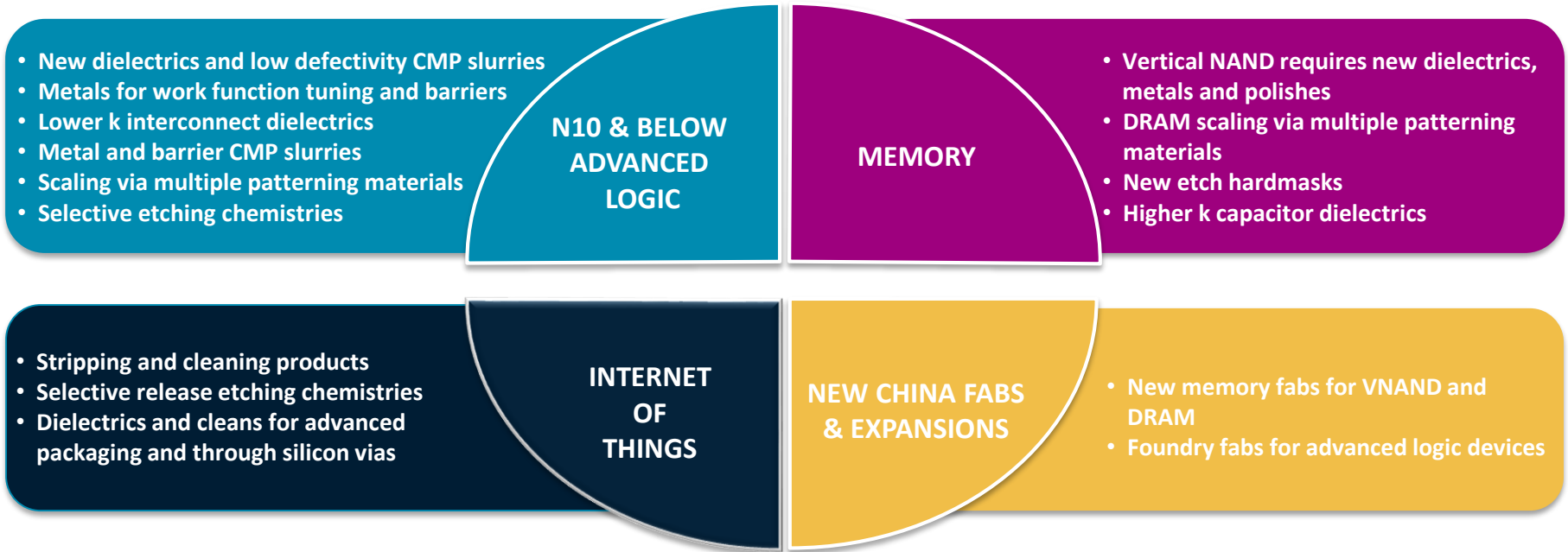
DATA TRAFFIC IN ZETABYTES PER YEAR



Source: Statista/Cisco Systems

MULTIPLE GROWTH DRIVERS

MATERIALS ARE CRITICAL TO BOTH LEGACY AND ADVANCED NODES



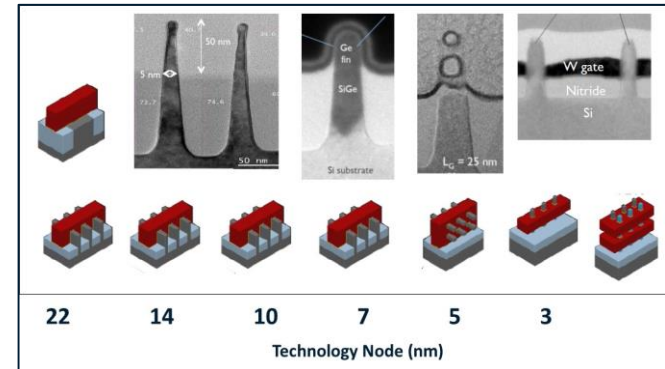
- Overall silicon demand more correlated with global GDP
- Advanced Nodes growing faster, about 2x GDP
- Materials growing faster, about 1.5x - 3x GDP, driven primarily by innovation required to enable advanced nodes
- Substantial semiconductor capex across the cycles

MATERIALS & EQUIPMENT GROWTH

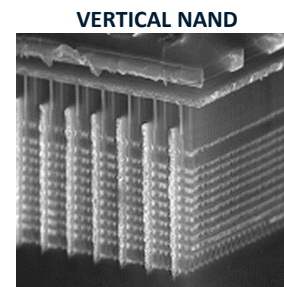
DRIVERS FOR INNOVATION AND USE

- **Industry volume growth**
 - MSI of Silicon for Materials
 - CAPEX Investment for Equipment and Services
- **Technology changes from new chip architectures**
 - Next generation nodes (new materials)
 - 3 dimensional structures (more processing steps)
- **Competitive position as a materials supplier**
 - Innovation/Differentiation capabilities
 - Supply infrastructure/Cost/Quality
 - Customer Partnership/Access

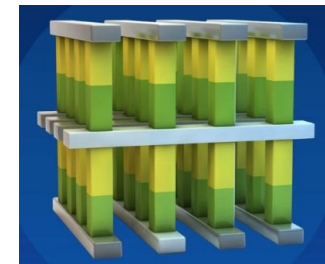
LOGIC TRANSISTOR ROADMAP



3D MEMORY



VERTICAL NAND



3D XPOINT

ARCHITECTURE CHANGES INCREASING DEMAND

EXAMPLE – IMPACT OF MEMORY GROWTH AND ARCHITECTURE CHANGE

GROWTH DRIVERS

- Increasing demand for Memory and capacity expansions by industry leaders
- Move to 3-D structures is increasing number layers and materials requirements
(more deposition and etch intensive)

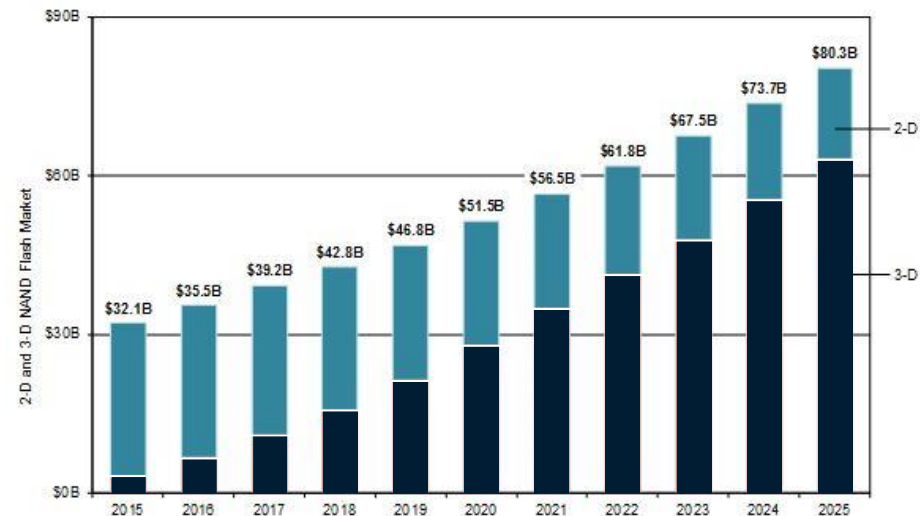
Volume/Wafer

- WF_6 >2x
- NF_3 ~1.5x
- C_4F_6 >6x

- Demand for new Materials and Processing Steps

MEMORY DEMAND GROWTH AND ARCHITECTURE SHIFT

2-D vs. 3-D NAND

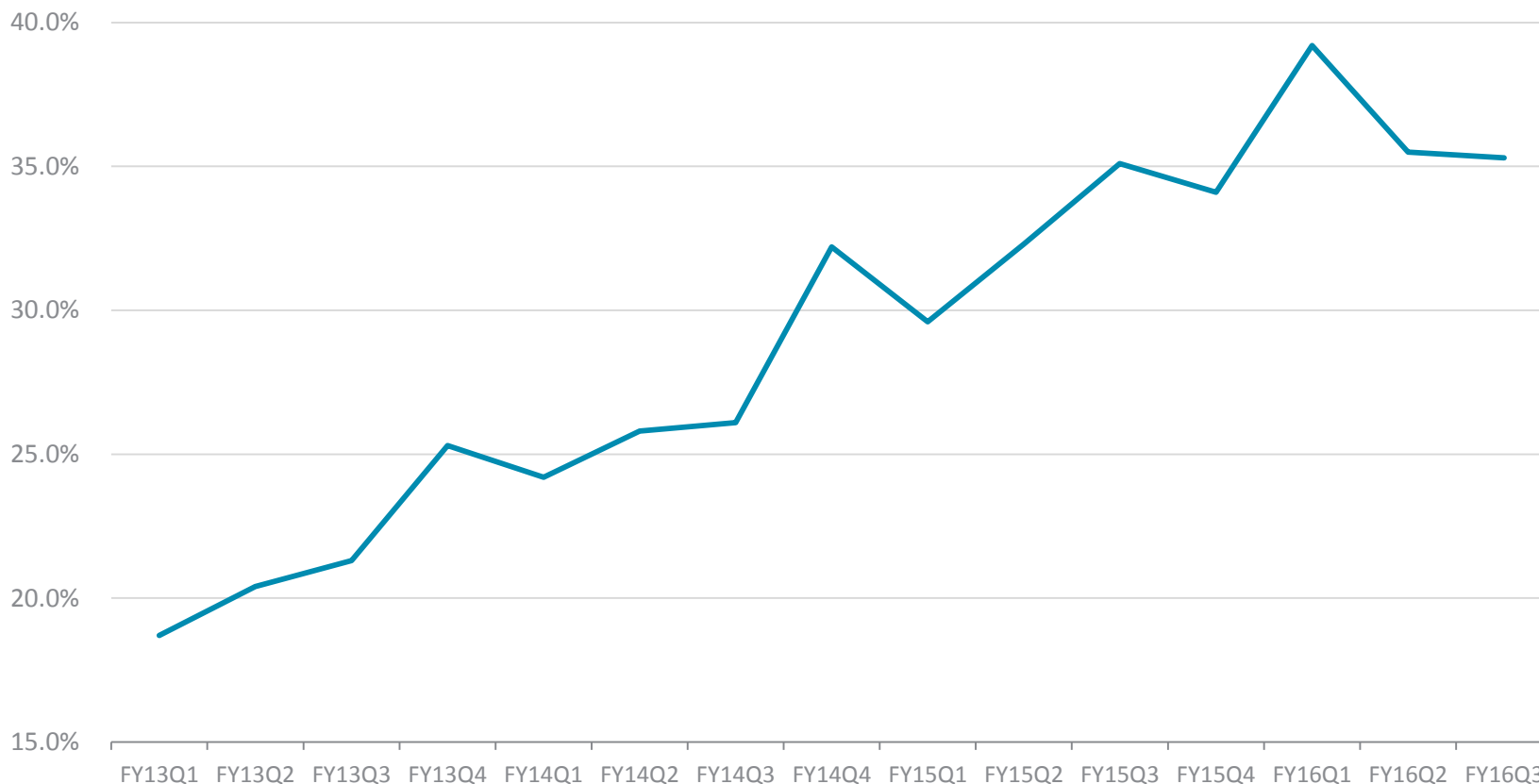


Source: SEMI

REACHING HIGHER LEVELS OF PERFORMANCE

SELF-HELP ACTIONS DRIVING SUSTAINABLE MARGIN IMPROVEMENT

ELECTRONIC MATERIALS ADJ EBITDA MARGIN



SIGNIFICANT CASH GENERATION

(\$ million)	
Adj EBITDA	\$310
Est. Interest	\$53
Est. Cash Taxes	\$54
Est. Maintenance Capex	<u>\$15</u>
Est. Distributable Cash Flow	\$188
Est. Growth Capex	\$15
Est. Free Cash Flow (before dividend)	\$173

FINANCIAL OVERVIEW

SETUP FOR SUCCESS

- **Strong financial profile with attractive and sustainable margins**
 - Technology & innovation leadership delivering tailored solutions
 - Strategically located global manufacturing footprint and infrastructure
 - Opportunity to optimize cost structure to a pure play Semiconductor Materials company
- **Solid Balance Sheet**
 - Expect to lever business at 3-4x EBITDA, expect initial debt level of approx. \$1 billion
 - Negligible environmental and pension liabilities, no material off balance sheet liabilities
- **Significant Cash Flow Generation**
 - Class leading EBITDA margins
 - Low capital intensity
- **Priorities for Cash Usage**
 - Fund innovation R&D and organic capital needs
 - Build capacity to fund value enhancing inorganic growth opportunities
 - Anticipate paying nominal dividend

LEADERSHIP

Seifollah Ghasemi

Director and Non-executive Chairman

Guillermo Novo

President and Chief Executive Officer
and Director

George Bitto

Senior Vice President and
Chief Financial Officer

Patrick F. Loughlin

Senior Vice President Operations and
Supply Chain

Michael W. Valente

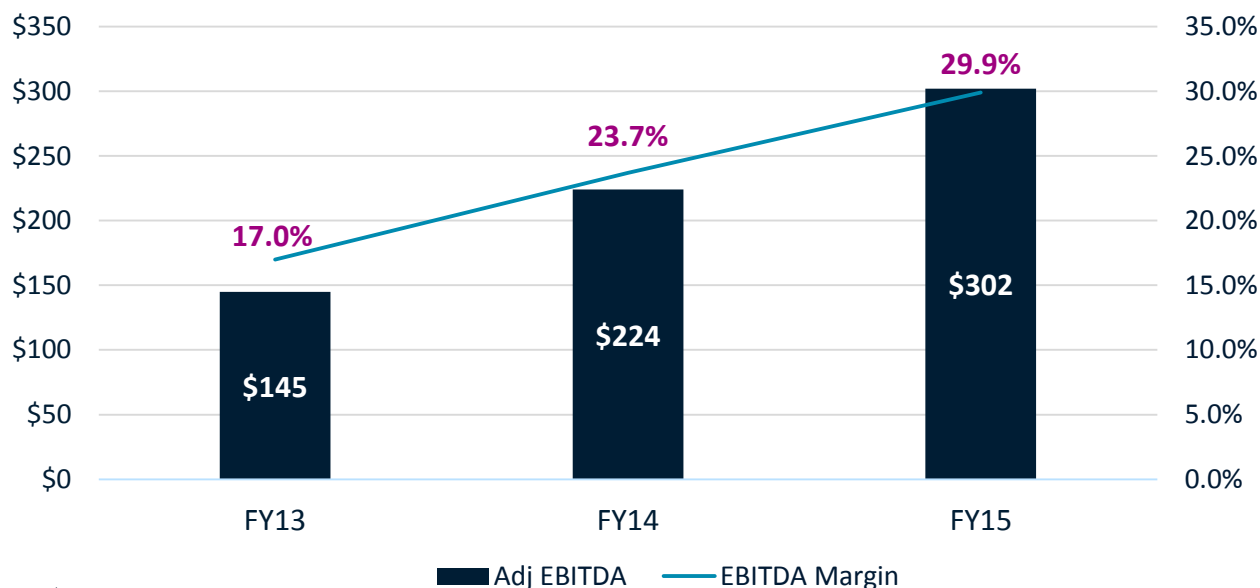
Senior Vice President Law and
Human Resources, General Counsel,
and Secretary

APPENDIX SLIDES

VERSUM COMBINED - FORM 10

**FY15 IMPROVEMENT DRIVEN BY IMPROVED PRICING/MIX,
HIGHER VOLUMES AND LOWER COSTS OFFSETTING UNFAVORABLE CURRENCY**

	FY13	FY14	FY15
Sales	\$ 853	\$ 943	\$ 1,009
Adj Operating Income	\$ 86	\$ 163	\$ 244
Op Margin	10.1%	17.2%	24.1%
Adj EBITDA	\$ 145	\$ 224	\$ 302
EBITDA Margin	17.0%	23.7%	29.9%



Materials Technologies

Electronic Materials

	Q3 FY16	Fav/(Unfav) vs. Q3 FY15
Sales	\$243	(8%)
- Volume		(6%)
- <i>Materials impact</i>		0%
- <i>DS&S impact</i>		(6%)
- Price		-%
- Currency		(2%)
EBITDA	\$86	(7%)
- <i>EBITDA Margin</i>	35.3%	20bp
Operating Income	\$73	(5%)
- <i>Operating Margin</i>	30.0%	80bp

- Overall Materials volumes flat with continued growth in Advanced Materials volumes
- Pricing/mix and productivity actions driving margin expansion

Note that this slide is provided for informational purposes only and does not represent an Air Products reportable segment. As reported for EMD within Air Products.

VERSUM FORM 10 NON GAAP METRICS

Versum - FORM 10				
\$ Millions	FY13	FY14	FY15	
<u>Materials Segment</u>				
Operating Income	83.3	124.6	213.7	
Add: Depreciation and amortization	54.9	52.7	48.1	
Add Equity Affiliates' Income	<u>2.1</u>	<u>1.7</u>	<u>1.0</u>	
Adjusted EBITDA	140.3	179.0	262.8	
Sales	628.4	640.0	743.4	
Operating Margin	13.3%	19.5%	28.7%	
Adjusted EBITDA Margin	22.3%	28.0%	35.4%	
<u>Delivery Systems and Services Segment</u>				
Operating Income	19.8	57.6	49.1	
Add: Depreciation and amortization	1.4	6.3	8.3	
Add Equity Affiliates' Income	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
Adjusted EBITDA	21.2	63.9	57.4	
Sales	224.4	302.5	265.9	
Operating Margin	8.8%	19.0%	18.5%	
Adjusted EBITDA Margin	9.4%	21.1%	21.6%	
<u>Corporate</u>				
Operating Income	(17.0)	(19.7)	(19.2)	
Add: Depreciation and amortization	0.6	0.5	0.5	
Add: Equity Affiliates' Income	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	
Adjusted EBITDA	(16.4)	(19.2)	(18.7)	
<u>Total Versum Materials</u>				
Operating Income	(46.5)	161.2	222.0	
Business restructuring and cost reduction actions	<u>132.6</u>	<u>1.3</u>	<u>21.6</u>	
Adjusted Operating Income	86.1	162.5	243.6	
Add: Depreciation and amortization	56.9	59.5	56.9	
Add Equity Affiliates' Income	<u>2.1</u>	<u>1.7</u>	<u>1.0</u>	
Adjusted EBITDA	145.1	223.7	301.5	
Sales	852.8	942.5	1,009.3	
Adjusted Operating Margin	10.1%	17.2%	24.1%	
Adjusted EBITDA Margin	17.0%	23.7%	29.9%	

ADJUSTED EBITDA – LTM ENDING JUNE 2016

AS REPORTED FOR EMD WITHIN AIR PRODUCTS

\$ Millions

	Quarter Ended				Jun16
	<u>Sep15</u>	<u>Dec15</u>	<u>Mar16</u>	<u>Jun16</u>	<u>LTM</u>
<u>Versum Materials</u>					
GAAP Operating Income	63.0	83.3	70.3	72.7	289.3
Add: Depreciation and amortization	15.9	12.7	12.5	13.0	54.1
Add: Equity Affiliates' Income	<u>0.3</u>	<u>0.2</u>	<u>0.0</u>	<u>0.0</u>	<u>0.5</u>
Adjusted EBITDA	79.2	96.2	82.8	85.7	343.9
 Sales	 232.5	 245.4	 233.5	 242.7	 954.1
Adjusted EBITDA Margin	34.1%	39.2%	35.5%	35.3%	36.0%
Operating Margin	27.1%	33.9%	30.1%	30.0%	30.3%