

# Revasum, Inc. (ASX: RVS) FY2018 Results

26 February 2019

Presenters:  
Jerry Cutini, CEO  
Ryan Benton, CFO



## DISCLAIMER

This presentation has been prepared by Revasum, Inc. (ARBN: 629 268 533) (**Revasum**) and is for information purposes only. Each recipient of this presentation is deemed to have agreed to accept the qualifications, limitations and disclaimers set out below.

The information provided in this document is general and may not be suitable for the specific purposes of any user of this document. It is not financial advice or a recommendation to acquire Revasum securities (ASX: RVS). Revasum believes that the information in this document is correct (although not complete or comprehensive), but none of Revasum or its subsidiaries or their respective directors, officers, employees, advisers or representatives (**Beneficiaries**) make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information contained in this presentation, including any forecast or prospective information. Users of this document should conduct their own independent review, investigations and analysis of Revasum and of the information contained or referred to in this presentation and obtain independent professional advice as to whether an investment in Revasum is appropriate for them, having regard to their personal objectives, risk profile, financial situation and needs, before relying on this document as the basis for any investment decision. Users should also refer to Revasum's financial statements lodged with the ASX for the period to which this document relates.

Future performance - Forward looking statements, opinions and estimates provided in this presentation are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward looking statements including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. An investment in Revasum securities is subject to investment and other known and unknown risks, some of which are beyond the control of Revasum. No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. To the maximum extent permitted by law, none of Revasum's employees, its directors, employees or agents, nor any other person accepts any liability, including, without limitation, any liability arising out of fault or negligence, for any loss arising from the use of the information contained in this presentation. In particular, no representation or warranty, express or implied is given as to the accuracy, completeness or correctness, likelihood of achievement or reasonableness of any forecasts, prospects or returns contained in this Presentation nor is any obligation assumed to update such information. Such forecasts, prospects or returns are by their nature subject to significant uncertainties and contingencies. Before making an investment decision, you should consider, with or without the assistance of a financial adviser, whether an investment is appropriate in light of your particular investment needs, objectives and financial circumstances.

### **Non-IFRS financial measures**

Revasum uses certain measures to manage and report on its business that are not recognised under Australian Accounting Standards or IFRS. These measures are collectively referred to in this document as 'non-IFRS financial measures' under Regulatory Guide 230 'Disclosing non-IFRS financial information' published by ASIC. Management uses these non-IFRS financial measures to evaluate the performance and profitability of the overall business. The principal non-IFRS financial measures that are referred to in this document is Adjusted EBITDA. Adjusted EBITDA is earnings before interest, tax, depreciation and amortisation and significant items. Management uses Adjusted EBITDA to evaluate the operating performance of the business prior to the impact of significant items, the non-cash impact of depreciation and amortisation and interest and tax charges.

Although Revasum believes that these measures provide useful information about the financial performance of Revasum, they should be considered as supplements to the income statement measures that have been presented in accordance with the Australian Accounting Standards and IFRS and not as a replacement for them.

## Financial data

All dollar values are in US dollars (US\$) unless as otherwise presented.





# AGENDA

Executing our Strategy

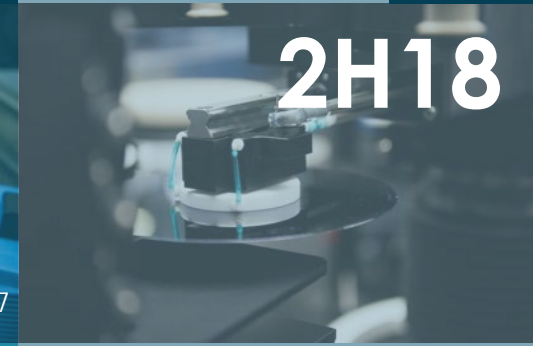
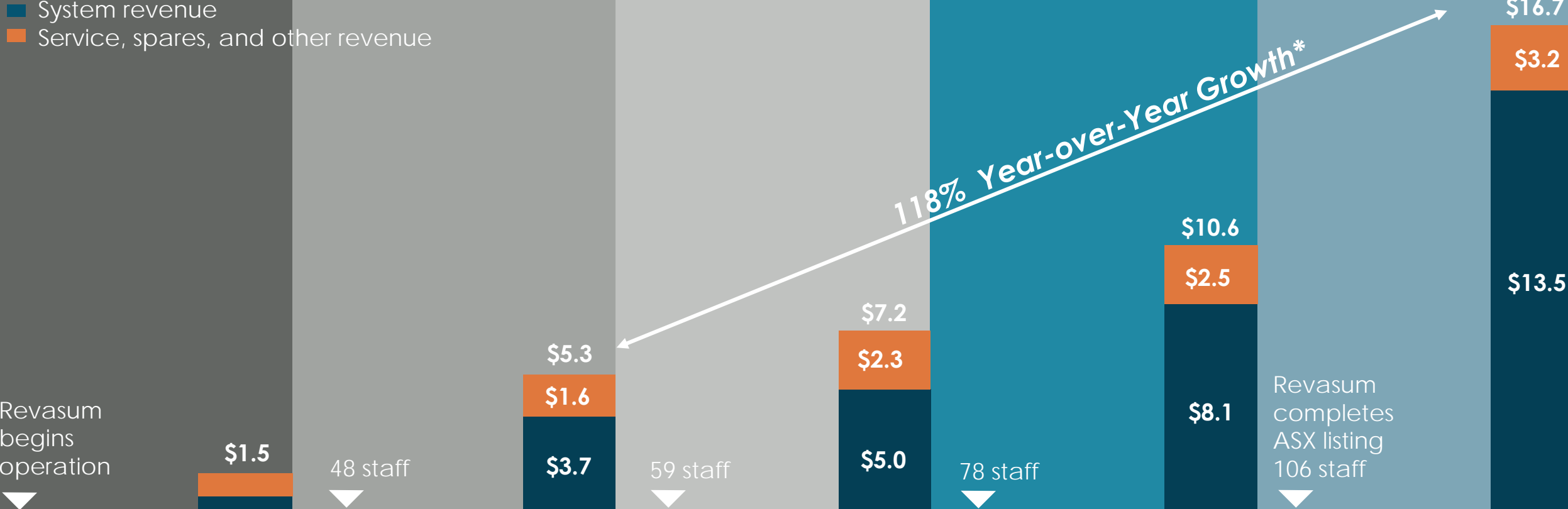
2018 Full Year Financial Performance

Market Opportunities and Highlights

Appendix: Company Overview

# GROWTH OF REVASUM

■ System revenue  
 ■ Service, spares, and other revenue



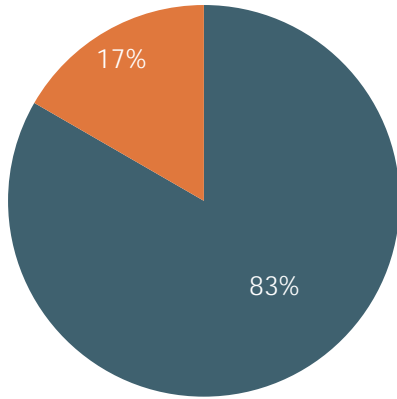
\* Fiscal year 2018 vs. Fiscal Year 2017

# FY18 HEADLINES

- Record Revenue of US\$27.3 million in 2018
  - increased 118% from prior year
  - compares to US\$27.5 million IPO prospectus forecast
- Global Resources added to Support Growth and New Product Development
  - Total Headcount increased from 59 to 106 employees during 2018
  - Opened Branch Office in Taiwan – increasing sales and service support for our Asia customers
  - David J. Roeloffs was appointed to the role of Vice President of Operations
- Began New Product Development of Silicon Carbide (SiC)-focused Polisher
- Single-wafer substrate manufacturing development projects with three leading SiC substrate manufacturers
- Successful completion of the Company's IPO and listing on the Australian Securities Exchange
- Cash Balance of US\$24.5 million and no debt

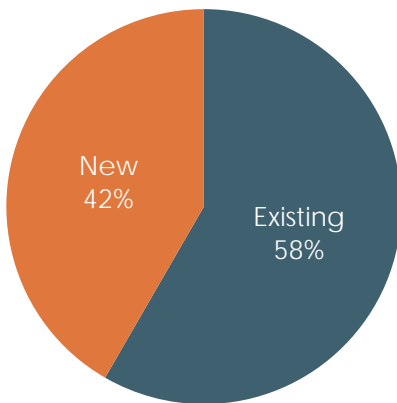


## INDUSTRY SEGMENT



■ Substrate ■ Device

## CUSTOMER TYPE



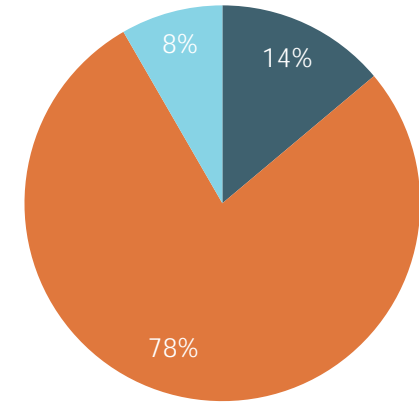
■ Existing ■ New

# 2018 PERFORMANCE AND BREAKDOWN



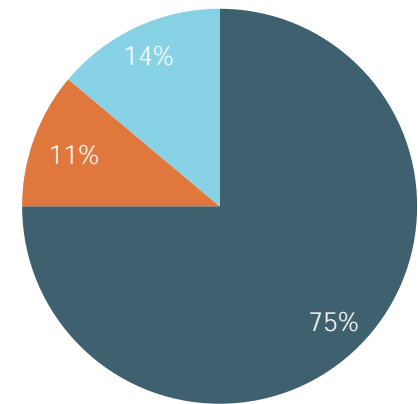
Company estimates based on revenue and customer data

## END MARKET



■ IoT ■ Automotive ■ 5G ■

## PRODUCT CATEGORY



■ Polisher ■ Grinder ■ CMP

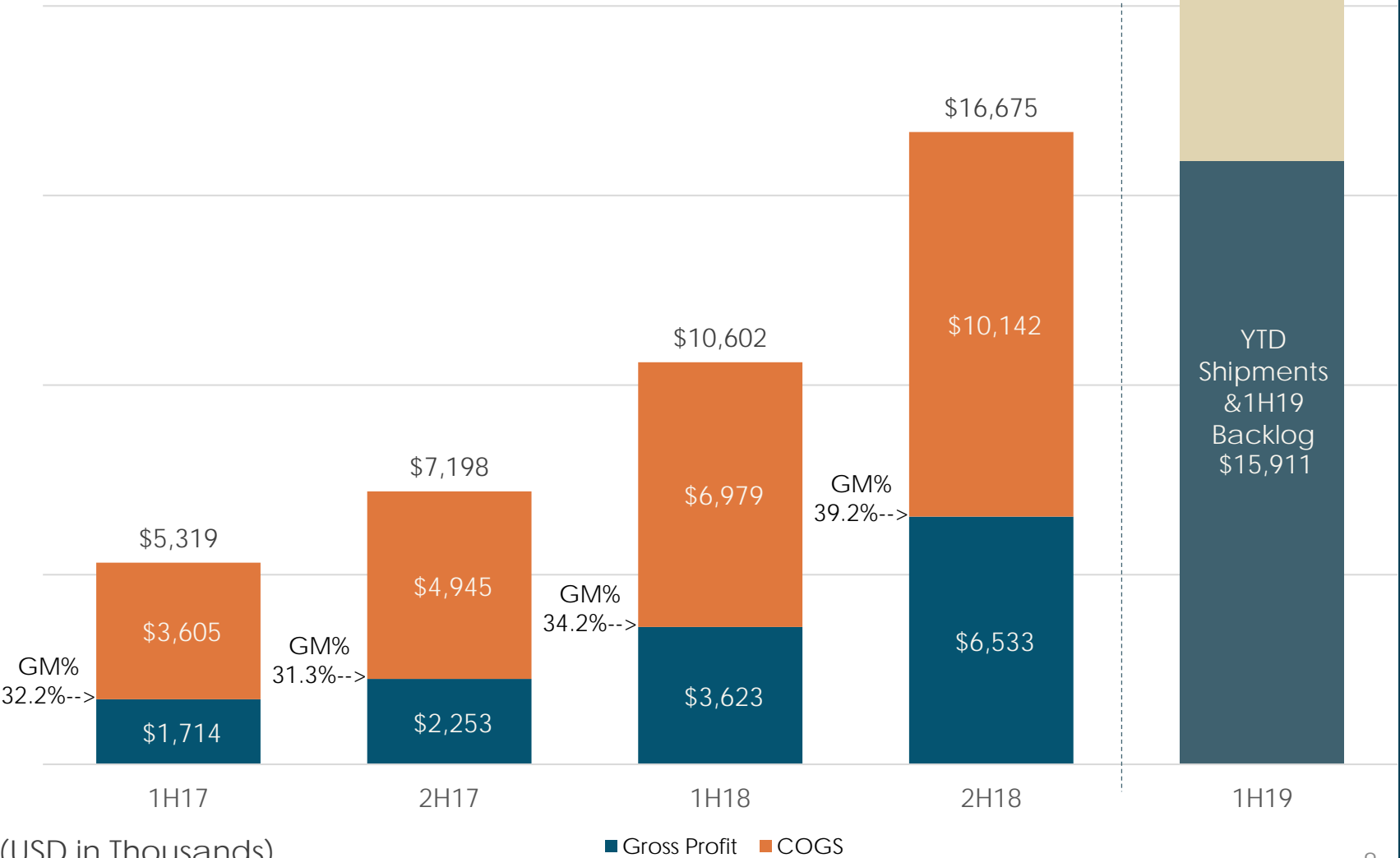


# 2018 FULL YEAR **FINANCIAL** PERFORMANCE

# Delivering Profitable Growth

Total Revenue, COGS, Gross Profit, and GM%  
Half Year Results

Total Revenue IPO  
Prospectus Forecast  
\$20,457



3X **REVENUE INCREASE** in  
24 month period

Gross **MARGIN** of 39%  
**INCREASED**  
from 32% GM

## \$15.9M SHIPMENTS & BACKLOG

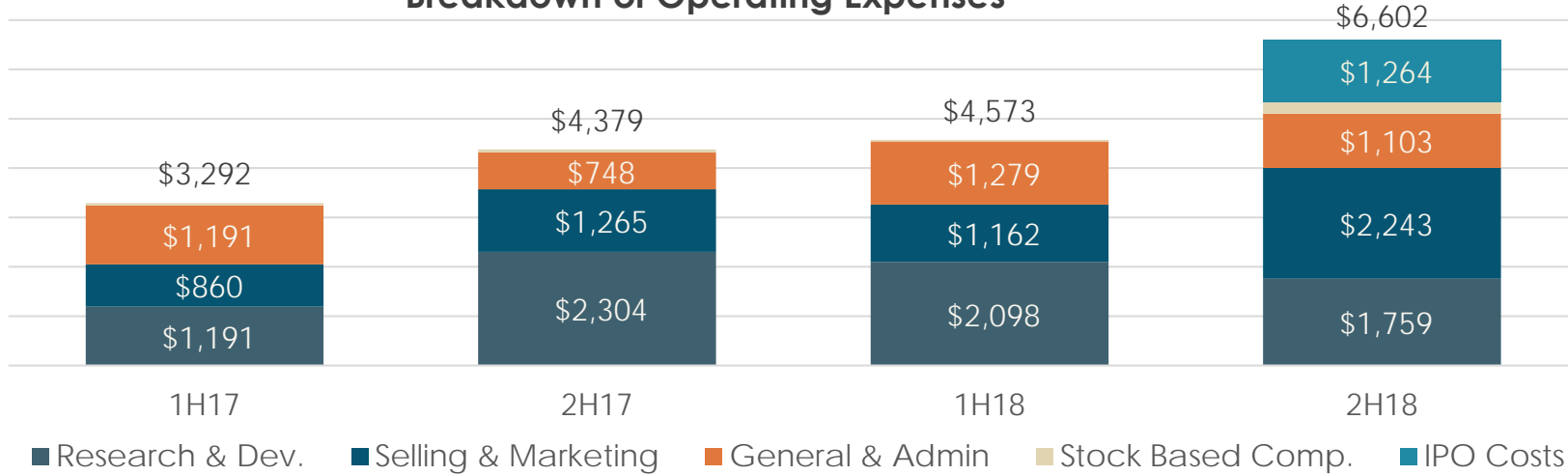
- for **1H19**, which includes:
- \$13.9 million Systems (84% of IPO prospectus forecast of \$16.5 million)
  - \$2.0 million Spares/Service/Other



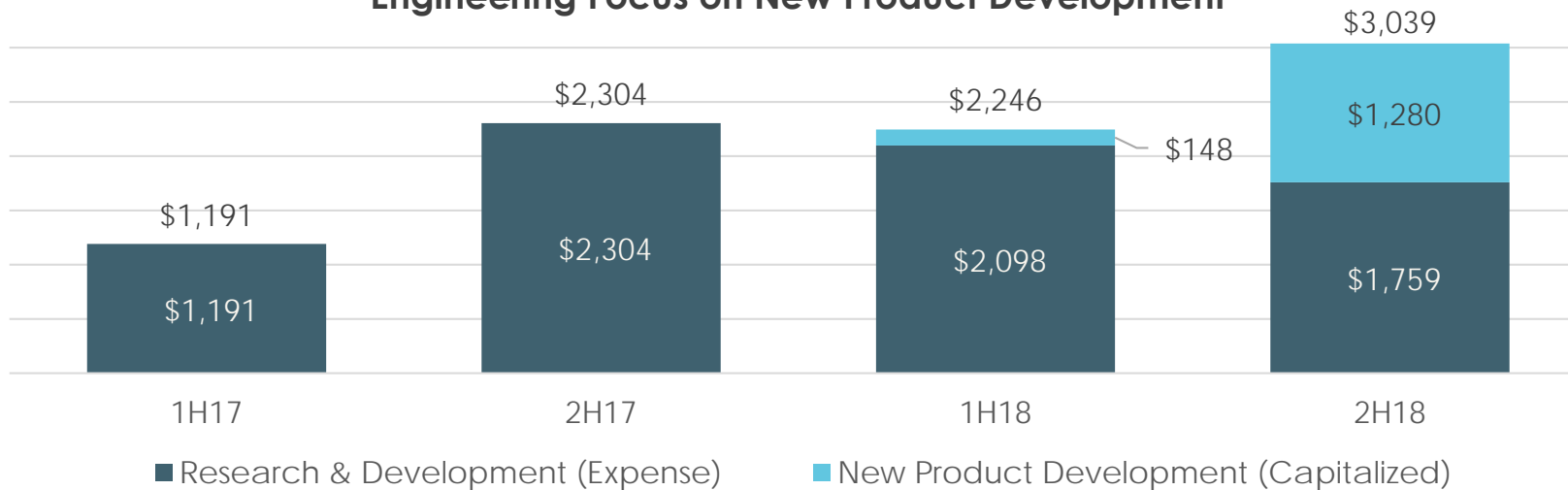


# Investing In Growth and New Products

## Breakdown of Operating Expenses



## Engineering Focus on New Product Development



2H18 **OpEx** at 32% of sales  
(excluding IPO Costs)

- **Selling & Marketing** team expanding and increased variable commissions
- **G&A** increasing going forward with addition of public company costs

Total **Engineering spend** increasing as SiC-focused Polisher new product development underway

# 2018 Financial Highlights

(USD in millions)	1H18	2H18	Change	FY18	IPO FY18*	Variance
Revenue	\$10.6M	\$16.7M	58%	\$27.3M	\$27.5M	(\$0.2M)
Gross Profit	\$3.6M	\$6.6M	\$3.0M	\$10.2M	\$10.0M	\$0.2M
GM%	34.2%	39.2%	500 bps	37.2%	36.3%	90 bps
Operating Expenses	\$4.6M	\$6.6M	(\$2.0M)	\$11.2M	\$11.1M	(\$0.1M)
Operating Loss	(\$1.0M)	(\$0.1M)	\$0.9M	(\$1.0M)	(\$1.2M)	\$0.2M

## Reconciliation of Adjusted EBITDA to Operating Loss

(USD in millions)	1H18	2H18	Change	FY18	IPO FY18*	Variance
Adjusted EBITDA	(\$0.8M)	\$1.6M	\$2.4M	\$0.8M	\$0.3M	\$0.5M
IPO Costs	\$0.0M	(\$1.3M)	(\$1.3M)	(\$1.3M)	(\$1.0M)	(\$0.3M)
Share Based Comp.	(\$0.0M)	(\$0.3M)	(\$0.3M)	(\$0.3M)	(\$0.3M)	(\$0.0M)
Depr. and Amort.	(\$0.1M)	(\$0.1M)	\$0.0M	(\$0.2M)	(\$0.2M)	(\$0.0M)
Operating Loss	(\$1.0M)	(\$0.1M)	\$0.9M	(\$1.0M)	(\$1.2M)	\$0.2M

\* IPO Prospectus Forecast for Fiscal Year 2018

**Revenue** increase driven by increase of machine shipments from 14 in 1H18 to 21 in 2H18

**Gross Margin** improved due to favorable product mix & start of realization of COGS reductions, as well as increase in operating leverage from system shipments

**Adjusted EBITDA** better than expected driven primarily by gross margin beat



# Strong Balance Sheet Post IPO to Support Continued Growth

(USD in thousands)	31 Dec 2018		30 Jun 2018 IPO Prospectus Proforma		31 Dec 2017	
Cash and cash equivalents	\$	24,469	\$	32,340	\$	2,406
Trade and other receivables		8,189		4,564		2,488
Inventories - net		8,378		7,472		4,039
Prop., plant and equip. - net		1,034		419		382
Intangible assets - net		1,536		274		237
Other assets		600		523		658
<b>Total assets</b>	<b>\$</b>	<b>44,206</b>	<b>\$</b>	<b>45,592</b>	<b>\$</b>	<b>10,210</b>
Trade and other payables	\$	5,911	\$	4,350	\$	2,414
Customer deposits		2,742		7,986		3,313
Borrowings		-		-		1,000
Other liabilities		560		378		537
<b>Total liabilities</b>	<b>\$</b>	<b>9,213</b>	<b>\$</b>	<b>12,714</b>	<b>\$</b>	<b>7,264</b>
<b>Total equity</b>	<b>\$</b>	<b>34,993</b>	<b>\$</b>	<b>32,878</b>	<b>\$</b>	<b>2,946</b>

**Cash** at 31 Dec 18 **\$24.5m** and no debt.

**Receivables** at 31 Dec 18 of \$8.2m increased due to higher sales. **\$6.2m** customer receipts received since year-end.

**Customer Deposits** at 31 Dec 18 of \$2.7m decreased due to concentration of timing of shipments in December.

Increase in **Intangible Assets** due to capitalized development costs for **SiC-focused polisher** development program.



# Cashflow

(USD in thousands)	2018			
	2018	IPO Prospectus Statutory Forecast	2017	
Receipts from Customers	\$ 20,936	\$ 21,998	\$ 11,309	
Payments to Suppliers and Employees	(28,850)	(27,310)	(15,804)	
Interest Paid - net	(11)	(2)	(48)	
<b>Operating Cashflow</b>	<b>\$ (7,925)</b>	<b>\$ (5,338)</b>	<b>\$ (4,543)</b>	
Purchase of PP&E	\$ (384)	\$ (1,212)	\$ (167)	
Payment of Cap. Dev. Costs	(1,362)	(2,265)	-	
<b>Investing Cashflow</b>	<b>\$ (1,746)</b>	<b>\$ (3,477)</b>	<b>\$ (167)</b>	
<b>Financing Cashflow</b>	<b>\$ 31,734</b>	<b>\$ 30,903</b>	<b>\$ 5,740</b>	
<b>Net Increase in Cash</b>	<b>\$ 22,063</b>	<b>\$ 22,088</b>	<b>\$ 1,030</b>	
<b>Cash, Beginning Balance</b>	<b>\$ 2,406</b>	<b>\$ 2,406</b>	<b>\$ 1,376</b>	
<b>Cash, Ending Balance</b>	<b>\$ 24,469</b>	<b>\$ 24,494</b>	<b>\$ 2,406</b>	

**Cash** at 31 Dec 18 **\$24.5m** vs. prospectus forecast of \$24.5m for same period.

**\$6.2m** customer receipts received since year-end.

**Investing Cashflow** spend ramped slower than forecasted in **2018**, but has been accelerating in **2019**.



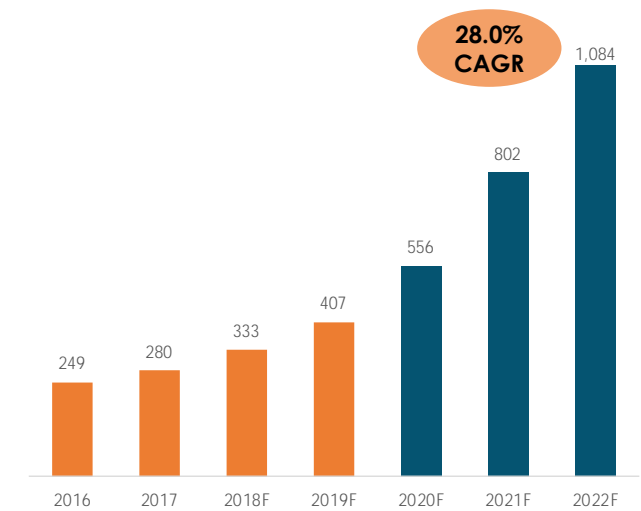


# MARKET OPPORTUNITIES AND HIGHLIGHTS

Revasum

# MARKETS

Global SiC Market (US\$m) (1)



Source: Yole



**SEMICONDUCTOR ENGINEERING**  
 Home > Manufacturing & Process Technology > SiC Chip Demand Surges  
**SiC Chip Demand Surges**  
 Electric vehicles drive demand

**II-VI Incorporated to Supply 200 mm Silicon Carbide Substrates under European Commission Program Horizon 2020**  
 January 29, 2019 08:00 ET | Source: II-VI Incorporated

**STMicroelectronics to acquire majority stake in silicon carbide wafer manufacturer Norstel AB**  
 February 7, 2019 - By GIPS World Staff

**200mm Fabs to Add 700,000 Wafers Through 2022, SEMI Reports**  
 MILPITAS, Calif. - February 12, 2019 - Robust demand for more content for mobile, Internet of Things (IoT), automotive and industrial production of 700,000 200mm wafers from 2019 to 2022, a 14 percent increase, reports SEMI, the global industry association serving the supply chain, in its latest Global 200mm Fab Outlook. The increase brings total 200mm wafer fab capacity to 6.5 million wafers per month their sweet spot with 200mm wafer fabrication.

**200mm Capacity Outlook (excluding EPI, LED, R&D)**  
 wafers per month million  
 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022  
 2018 to 2022 over 700,000 wafers (14%) added  
 210 Fabs  
 Source: 200mm Fab Outlook report, January 2019, published by SEMI

**Cree And STMicroelectronics In SiC Wafer Deal**  
 Monday 7th January 2019  
 Multi-year agreement to boost expansion of SiC in automotive and industrial applications  
 Cree has announced that it signed a multi-year agreement to produce and supply its Wolfspeed SiC wafers to STMicroelectronics. The agreement governs the supply of a quarter billion dollars of Cree's advanced 150mm SiC bare and epitaxial wafers to STMicroelectronics during this period of extraordinary growth and demand for SiC power devices.

Headlines in 2019

# INVESTMENT HIGHLIGHTS / OUTLOOK

- Capitalizing on strong growth in demand for end-use products driven by the Automotive, IoT, & 5G markets.
- On track to meet 1H19 prospectus revenue forecast of US\$20.5 million. Strong order book - \$15.9 million shipments & backlog scheduled to ship in 1H19. Significant Effort underway to ramp increased production capacity.
- New Product development of SiC-focused Polisher tracking to be delivered on-time and on-budget in 2H19.
- Strategically focused on the wafer substrate and device markets sized 200mm and below where there is a known shortage of equipment supply.
- Experienced Management Team
- Strong Intellectual Property Portfolio



**Questions**



**Dial \* 1 if you have  
a question**

TM

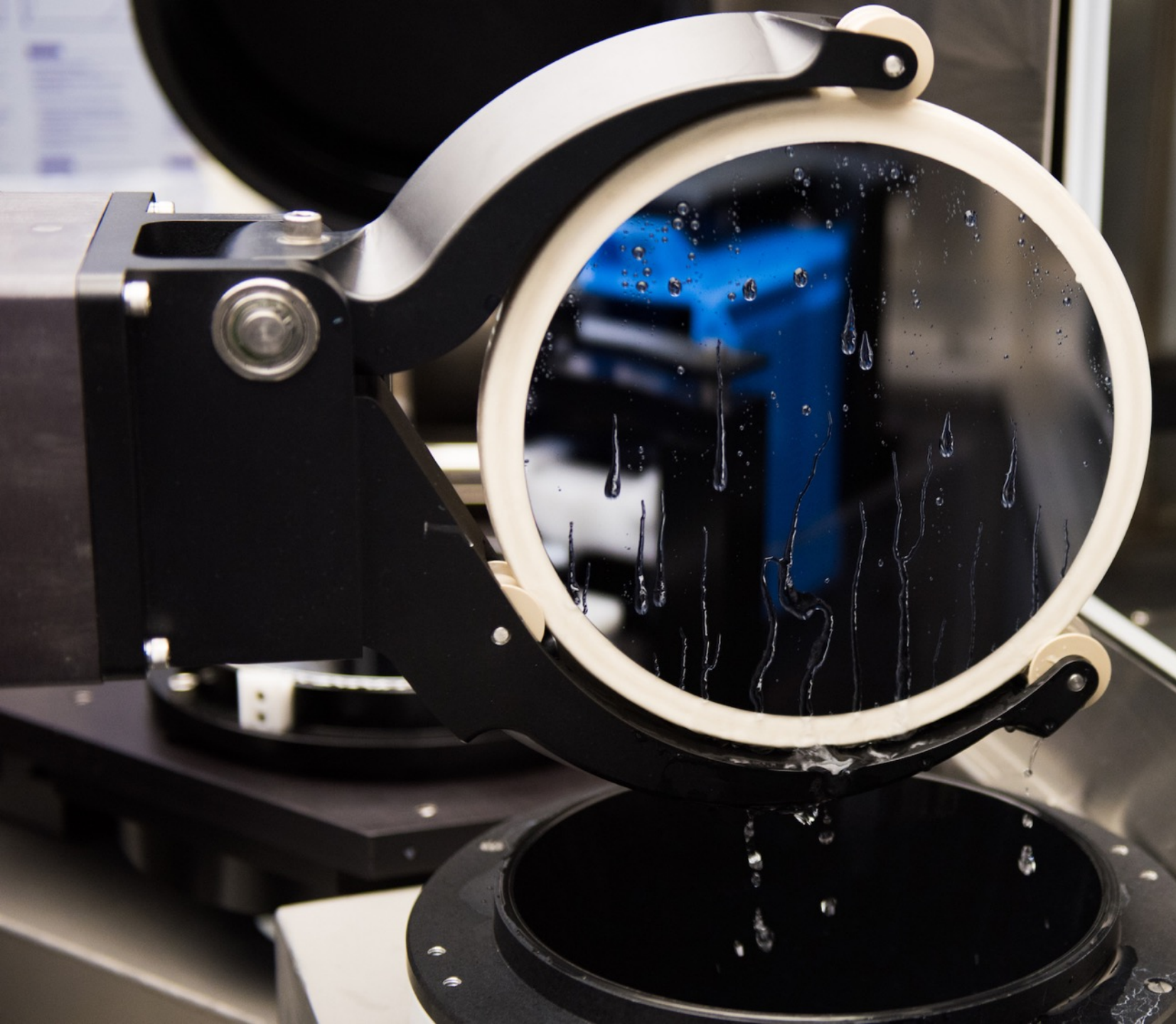


# Appendix

Company Overview



TM



Revasum is a leading designer and manufacturer of equipment core to the production of substrates and semiconductor devices used in IoT, automotive, wearables, telecommunications and industrial applications.



# Introduction to Revasum

Revasum is a leading designer and manufacturer of equipment core to the production of substrates and semiconductor devices used in IoT, automotive, wearables, telecommunications and industrial applications.

## Company Snapshot

- **A rapidly growing semiconductor equipment company**

- Revasum's product portfolio is diversified across semiconductor substrate and device manufacturing processes

- **Strong industry tailwinds**

- The global semiconductor market is forecasted to grow to US\$570 billion by 2022 (7.0% CAGR from 2015)<sup>(1)</sup>
- Revasum participates in the grinding and Chemical Mechanical Planarization markets which are estimated to be US\$2bn annually
- Capital equipment supply shortage for substrates sized 200mm and below

- **Experienced Management team**

- A high quality senior management team with deep industry experience

- **Visibility to Significant growth trajectory**

- **Strong IP portfolio**

- Portfolio of 60+ US patents
- Closely guarded trade secrets, providing significant competitive advantage

1. Source: Yole, IC Insights, VLSI Research

# Board of Directors



**Jerry Cutini**  
Executive  
Chairman,  
President and Chief  
Executive Officer

- Over 35 years experience in the semiconductor equipment industry working for Applied Materials (Nasdaq:AMAT) , Silicon Valley Group, OnTrak Systems, Lam Research (Nasdaq:LRCX), Gasonics International and Aviza Technology.
- Currently involved with the Global Trade Association, Semiconductor Equipment and Materials International (SEMI) Member, North American Advisory Board, Public Policy Committee.
- In senior roles, Jerry has overseen two IPO's – NASDAQ: ONTK and AVZA, and raised over \$250m for equipment start-ups in both public and private markets
- Completed multiple M&A transactions and sold nearly \$1B of companies, ONTK, Gasonics and Aviza.



**Ryan Benton**  
Executive Director  
and Chief Financial  
Officer

- Ryan has been the CFO of Revasum since August 2018, previously, Ryan was the CFO of Brainchip (ASX: BRN) since August 2017
- Ryan served as CEO and Board Member at Exar Corporation (NYSE: EXAR), which was acquired by MaxLinear Corporation (NASDAQ: MXL) in May 2017. Ryan joined Exar as CFO in 2012
- Previously CFO of SynapSense Corporation (a private venture-backed company ), CFO of SoloPower, Inc. (a manufacturer of thin-film solar cells and flexible solar modules), and financial consultant for the United States subsidiary of ASM International NV (a semiconductor capital equipment company).
- Mr. Benton has also served as a member of the Board of Directors of Pivotal Systems (ASX: PVS) since July 2012 and has served as its Audit Committee Chairman since its recent listing in July 2018.
- Ryan holds a B.A. from the University of Texas at Austin and is a licensed Certified Public Accountant



**Kevin Landis**  
Non-Executive  
Director

- Kevin is the CIO of Firsthand Capital Management, an investment management firm he founded in 1994
- Firsthand Capital Management is the investment adviser to Firsthand Technology Value Fund (NASDAQ: SVVC), a publicly-traded venture capital fund
- Born and raised in Silicon Valley, Kevin has over two decades of experience in engineering, market research, product management, and investing in the technology sector.
- Kevin holds a bachelor's degree in electrical engineering and computer science from the University of California at Berkeley and an MBA from Santa Clara University



**Paul Mirabelle**  
Non-Executive  
Director

- Paul is a business executive based in Australia with extensive leadership experience across both private and public companies, specializing in strategy, international growth, mergers and acquisitions, and private equity-backed ventures.
- The last 10 years have been focused on healthcare organizations.
- Paul has extensive commercial experience, most recently as Asia Pacific Regional Director at Amplifon, the global leader in audiology, a role he has held since 2010.
- Prior to that, he spent six years as CEO of NHC Group, Australia's and New Zealand's largest provider of audiology services.
- Prior to this, Paul was the CEO of Medical Imaging Australia, joining the company after spending three years as Executive Vice President of Telus Communications in Canada.
- Prior to moving into industry, Paul spent 12 years as a partner at the Boston Consulting Group in Sydney and practiced law as a barrister & solicitor for four years with Walsh Young in Calgary, Canada.
- Paul holds an LLB and an MBA with Distinction from the University of Western Ontario.



**Vivek Rao**  
Non-Executive  
Director

- Vivek Rao is a semiconductor capital equipment specialist with more than 21 years' experience in the global industry.
- Vivek has held a number of technology leadership and managerial roles in the industry in the UK and Silicon Valley and is presently the President and Chief Operations Officer of SPT Micro-technologies.
- He is also the Managing Director of international subsidiaries in Germany, Taiwan, Singapore and Malaysia for SPT Microtechnologies a division of Sumitomo Precision Products.
- Vivek is currently a Non-Executive Director of BluGlass Limited (ASX: BLG).
- Prior to his current role, Vivek was the Vice President and General Manager of the Thermal Products Division of SPTS Technologies and formerly the Vice President of Product Management – products included batch furnaces, APCVD and single wafer Atomic Layer Deposition (ALD) system for Aviza Technology.
- Vivek has published two technical papers and been awarded a patent in the area of device fabrication.
- Vivek holds a Bachelor of Science in Electrical Engineering from the BMS College of Engineering and an MS, in Electrical Engineering from the University of Houston.

# Senior Management



**Dr. Robert Rhoades**  
Chief Technology Officer  
and Vice President of  
Applications

- Dr. Robert Rhoades brings over 23 years of experience in developing leading CMP process technology. His expertise includes process engineering, CMP integration, and global applications support for everything from R&D prototypes through volume production on virtually any material.
- Dr Rhodes began his career in semiconductors at Motorola in plasma CVD and quickly transitioned to take over responsibility for ramping CMP into production for oxide, tungsten, and STI CMP.
- Recently, Rob held a number of executive positions including Director of Engineering at Rohm & Haas and CTO at Entrepix, Inc.



**Bill Kalenian**  
Vice President of  
Engineering

- Bill Kalenian is the innovator of many of wafer carrier and CMP tool technologies. He held positions in process engineering and was manager of wafer carrier development.
- In 2003 he was appointed director of CMP tool development; in 2008, director of engineering; and in 2010, vice president of engineering. Bill was key in the acquisition of Strasbaugh's technology for Revasum.
- Mr Kalenian has been awarded five US patents.



**Sarah Okada**  
Vice President of  
Marketing and Product  
Management

- Ms. Okada started in the semiconductor industry in 1995 as a marketing assistant in the applications development group.
- In 2013, Ms. Okada was promoted to director of sales and marketing for Strasbaugh where she incorporated marketing and sales best practices to develop the new brand for Strasbaugh.
- Recently Ms. Okada was key in the acquisition of Strasbaugh's technology for Revasum and was elected vice president of marketing and product management.



**David Roeloffs**  
Vice President of Operations

- Mr. Roeloffs brings more than 22 years' experience in industrial engineering, worldwide sourcing, inventory/materials management, sales, and operations planning & cycle time reduction.
- His specialties include: crafting global sourcing strategies, supply chain flexibility, deploying organizational transformation and developing/implementing the corporate design.
- Recently, Mr. Roeloffs served as Global VP of Strategic Sourcing for Honeywell Corporation, working on projects such as the "Buy Honeywell" program which generates \$100 million in revenue annually.



**Eric Jacobson**  
Vice President of  
Customer Support

- Eric Jacobson started in the semiconductor industry in 1990 in the position of Service Manager.
- He grew the department to fifty service techs operating worldwide.
- In addition, he manages sales of spare parts and tool upgrades with total annual department sales of approximately one third of company revenue.
- In 2010 Mr. Jacobson was elected V.P, Customer Support for Strasbaugh.
- Most recently Mr. Jacobson worked to on the acquisition of Strasbaugh's technology for Revasum.



**Dennis Riccio**  
Vice President of Sales

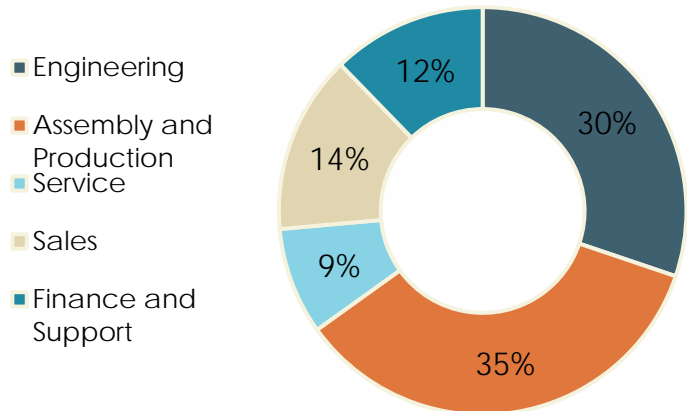
- Dennis's former positions include President and Chief Operating Officer and Managing Board Director of a NASDAQ company in the Semiconductor Industry with revenues in excess of \$200M.
- Substantial knowledge and experience in the realm of Customer Operations and Marketing.
- Experience in Mergers and Acquisitions both on the buy and sell side. Entrepreneur, Founder and Vice President of Sales and Marketing of an Integrated Display Systems company that achieved sales in excess of \$200M – NYSE.

# Global Footprint

Revasum has a sales and manufacturing presence across the US and Asia.



## Revasum Employee Breakdown as of 31 Dec 2018

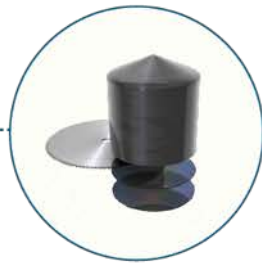


# Where Our Systems are Used – Substrate Manufacturing

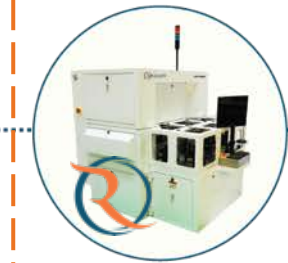
Substrate manufacturing process



Grow



Slice



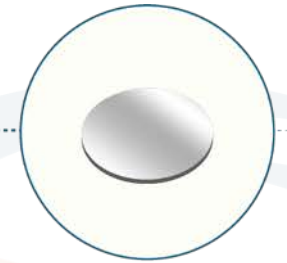
Grind



Polish



Clean



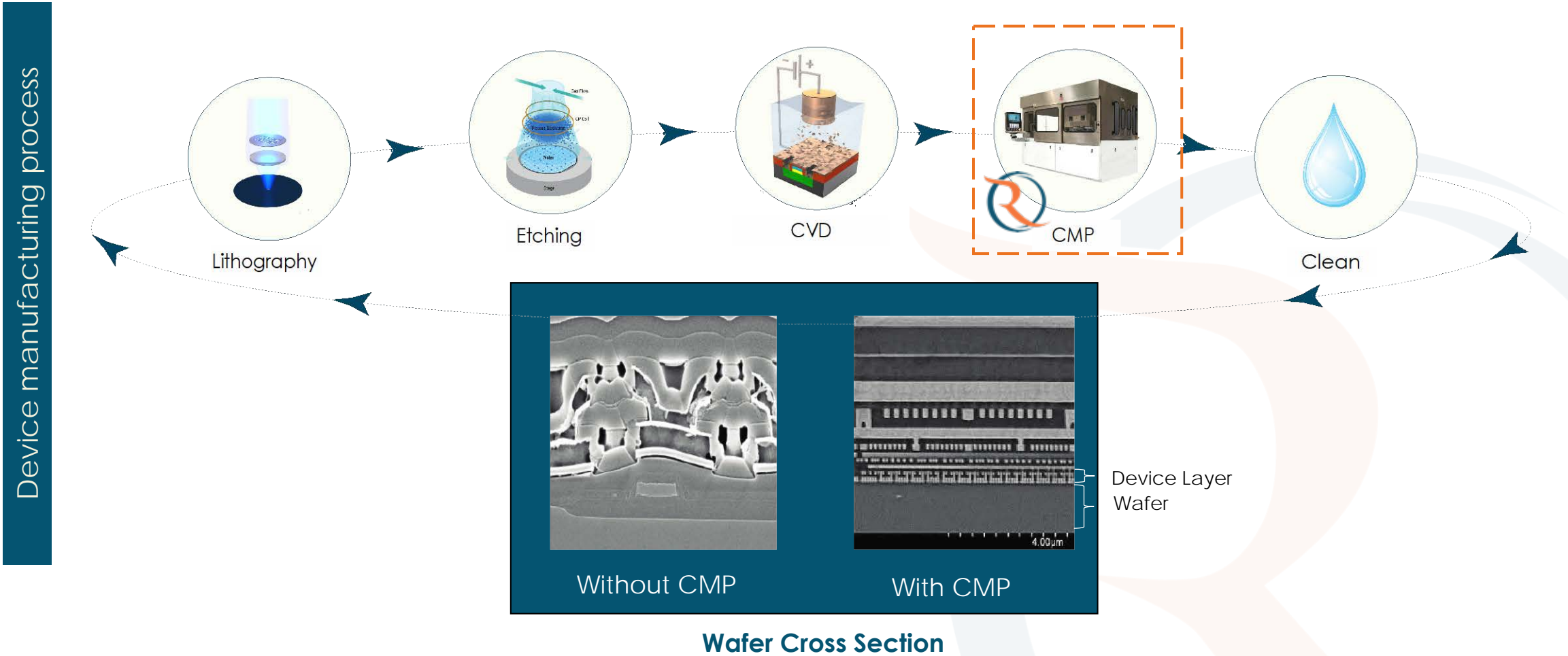
Epi Wafer


### Ingots and Boules

<p><b>Si</b> Cubic</p>	<p><b>SiC</b> Hexagonal</p>
----------------------------	---------------------------------

 Applicable processes for Revasum's systems

# Where Our Systems are Used – Device Manufacturing



 Applicable process for Revasum's systems



# Product and Target Customer Overview

Revasum specialises in developing systems for the grinding, polishing and CMP stages of the semiconductor manufacturing process

Revasum's customer base includes:

- **Substrate manufacturers:** who use Revasum's grinding and polishing systems to develop both silicon and silicon carbide wafers that have uniform characteristics to maximize yield for the device manufacturers
- **Device manufacturers:** who use Revasum's CMP systems (1) to planarize thin films after layers of the device have been deposited and (2) for backside thinning of the device in preparation for packaging

## REVASUM SYSTEM EXAMPLES

### Substrate processing systems



6DS-SP



6DZ

### Device processing systems



6DS-SP



7AF-HMG



# Competitive Advantage

Revasum has leveraged its significant IP and systems expertise to create a strong competitive advantage in substrate and device processing

## Competitive Advantage

### Strategic focus:

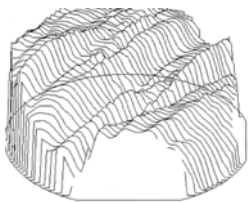
- Focus on delivering its systems into the undersupplied market of 200mm wafers and below
- Significant focus on silicon carbide processing capabilities to leverage large identified market opportunity

### Product and technology:

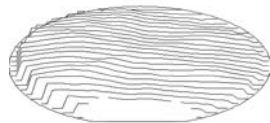
- Multiple product specific advantages across relevant performance metrics as assessed by customers including thickness and smoothness, cost (upfront and ongoing maintenance) and service

## Si Substrate Grinder Performance

Before



After



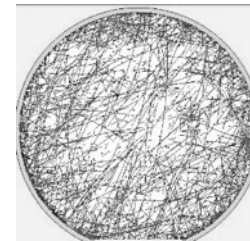
Industry TTV<sup>1</sup> = 4.71 microns vs Revasum TTV<sup>1</sup> = 0.87 microns

1. Total thickness variation

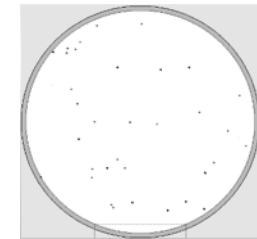
## Customer Value Proposition

✓	Lower cost per wafer
✓	Higher throughput
✓	Reduced wafer handling steps
✓	Better wafer-to-wafer yield
✓	Enhanced SiC processing capabilities

## Sic Single Wafer Polisher Performance



Total Scratches = 19999



Total Scratches = 0



TM