



SPECIAL PRESENTATION to SHAREHOLDERS

T.J. Rodgers
Executive Chairman
January 3, 2023



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Enovix Corp

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NASDAQ: ENVX

Overview

News

Compare

Financials

Q3 Shareholder Letter:

“We expect Fab-1 improvement activities to extend into 2023, but at a slower rate given the decision to redirect resources to Gen2. Given this, we expect to exit 2023 at a run rate of under one million battery cells produced from the Gen1 equipment at Fab-1. There is opportunity for significant outperformance dependent on the timing of the completion of ongoing Fab-1 improvement projects...”

What?

Inglés, Por Favor

10.74 USD -7.60 (-41.44%) ↓ past 5 days

Closed: Nov 3, 7:58 PM EDT • Disclaimer
After hours 10.74 0.00 (0.00%)



Memorandum

For Internal Distribution Only

To: T.J. Rodgers
From: Charlie Anderson
Date: 12/18/22
Memo #: CLA-008
Subject: Shareholder Feedback, Q422

The purpose of this memo is to capture shareholder feedback gathered since Enovix reported Q322 financial results on 11/1/22.

Top 10 Institutional Shareholder (2M+ shares)

“People are openly questioning if the product is manufacturable.”

“We’re lucky to be at \$10. Revenue in 2023 was supposed to be \$176 million. Now it’s \$8 million.”

“When you can’t name where Fab-2 is going to be it appears that you have no plan.”

“This should be like a biotech. There’s a set schedule that everyone can understand with identifiable milestones and you can update us on the milestones as they are met or not met.”

Top 30 Institutional Shareholder (500K+ shares)

“The problem with your message is that it’s ‘we don’t know how to walk, but trust us we can run.’”

2XXXXX Rev 2
Memorandum

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Page 1 of 7



T.J. Rodgers Appointed Enovix Executive Chairman

FREMONT, Calif, Nov. 7, 2022 — Enovix Corporation (“Enovix”) (Nasdaq: ENVX), the leader in the design and manufacture of next generation 3D Silicon™ Lithium-ion batteries, today announced that T.J. Rodgers has been appointed Executive Chairman, effective immediately. Rodgers holds 21.4 million shares of Enovix and was a buyer (\$3.5 million) in May when the stock dropped into the \$8.85 range.

Rodgers said, “**Our board has by design several successful operating executives, who are committed to spend whatever time is required at Enovix to ensure the Company’s operational success.** We are silicon and Moore’s Law operations people and comprehend the sea-change opportunity Enovix and its technology offer.

We are going to infuse Enovix with a silicon-industry mindset.



T.J. Rodgers Appointed Enovix Executive Chairman

Problem 1: The lack of clear and transparent investor communications. I have worked with the Enovix team for ten years. It has always been honest. Yet, we must improve the clarity of our communications.

Problem 2: The delay and projected underperformance of Fab-1. We have poorly communicated on the status of Fab-1. I have heard from many investors that the delay and projected underperformance of Fab-1 must be the result of some catastrophic technology problem. **For the record: Fab-1 is going to work and ship a lot of batteries to our customers – period.**

Problem 3: The delay of the Gen2 autoline, the Enovix “copy exact” engine for economic scaling. An astute investor tracked me down on my car phone just before the Enovix board meeting last Friday. His question was, ‘What’s holding up the Gen2 line?’ My answer was, ‘T.J. Rodgers.’



T.J. Rodgers Appointed Enovix Executive Chairman

Rodgers concluded, “We have \$349 million of your dollars left and **that money will produce world-record batteries in Fab-1 and create the first Gen2 line.**

By the way, the next battery shipped from Fab-1 will be serial number 4,163 (with zero returns), and I am proud of that.”

That’s the first time we ever said how many cells we have shipped! Why?

The cumulative number is now 8,812 shipped (Q4) and we expect to at least double our shipments in every quarter of 2023.

SPAC Investor Presentation

November 30, 2020

Rev. 9 12/2/20

The crash to \$10.74 is our fault, too. We control the board. Our SPAC sold stock at \$10, and although it's still up, investors are unhappy for good reasons.

Our SPAC bragged about Enphase Reward So Far >100:1



Market Summary > Enphase Energy Inc NASDAQ: ENPH

139.07 USD +3.05 (2.24%) ↑

Closed: Nov 25, 6:35 PM EST · Disclaimer
After hours 139.07 0.00 (0.00%)

1 day 5 days 1 month 6 months YTD 1 year **5 years** Max



Open	136.21	Div yield	-
High	141.42	Prev close	136.02
Low	135.13	52-wk high	141.42
Mkt cap	17.57B	52-wk low	20.77
P/E ratio	109.00		

We bragged about the Cypress chip autolines
Cypress Autoline 2000 – TJR's Personal Project



TJR's personal project

Line 1: 3,600 UPH

⋮

Line 10: 10,000 UPH

Invest in entrepreneurs...

SunPower had a great idea and strategy, but cash was running short – until it received a \$750,000 personal check from someone who saw the light

Tom Abate, Chronicle Staff Writer

April 9, 2007 | Updated: Jan. 18, 2012 3:43 a.m.



Chronicle Illustration / Mike Kepka

Dick Swanson
CEO SunPower

T.J. Rodgers
CEO Cypress



And the SunPower Autoline: 5 months install-to-silicon; 11 months 10% to 90% yield
Autoline: Continuous River of Silicon

SUNPOWER

AUTO LOAD / UNLOAD



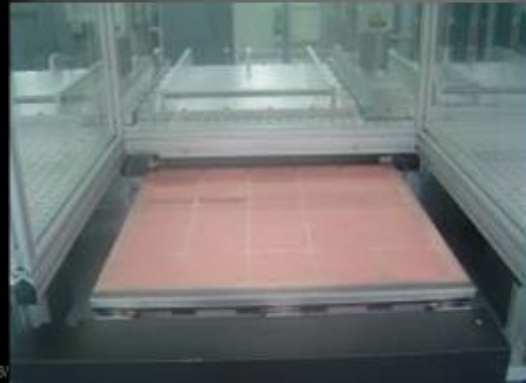
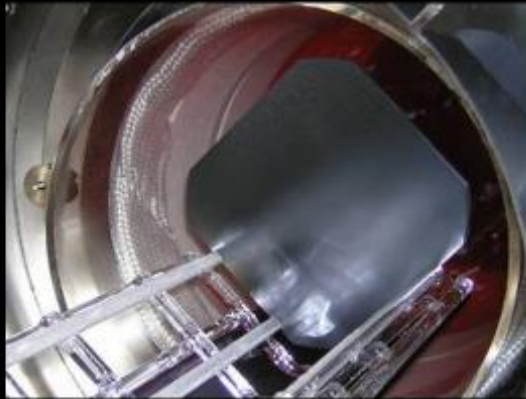
TJR

208

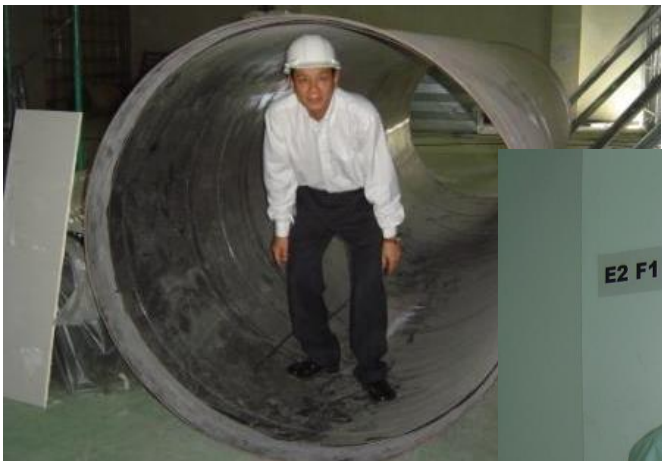
SUNPOWER

SPUTTER: AL/TiW/Cu

DIFFUSION TUBE



And about SunPower's new low-cost plant built in Manila
Cypress-SunPower Manila Solar Plant



Minh Pham

Greg Reichow



Manny Hernandez



Enovix Board

TJR ETH JDM SG JM GR LH

X	X	X	X	X	X	X
X		X		X	X	
X	X	X	X	X	X	X
X		X	X		X	
X	X	X	X	X	X	X

IPO by SPAC: Our Criteria for the Initial Business Combination

SPAC S1 filing Target Company Criteria

- 1. ? Public company readiness.** This does not necessarily mean having a string of profitable quarters, but we believe the company must have in place the **management team**, **corporate culture** and **basic business processes**.
- 2. ✓ A technically dominant product** to rapidly take market share on a technical (**not price**) basis.
- 3. ✓ Customer endorsements** of the company and its products.
- 4. Excellent employee core values**, as defined by Stanford's Jim Collins and Jerry Porras in their classic book "Built to Last", with as many of the following core values as possible:
 - o Smart, tough and hardworking people
 - o Truthful, concise and non-political
 - X** o Objective, logical, data-driven in decision makers
 - X** o Problem solvers who take responsibility for problems
 - o Committed to their company and vice versa—**100% employee shareholders**
- 5. An excellent company culture**
 - X** o A **learning culture** that speaks and writes precisely and embraces new ideas
 - o **✓ A quality culture** that demands excellence from its most challenging product to its memos
 - X** o A **winning culture** that is passionate about delivering results (on time)
 - X** o A **culture that respects capital** with conspicuous avoidance of extravagance and effective cost controls
- 6. An excellent management team**
 - o **Fully deployed written quarterly plan**
 - o **Leads the company by example:** work ethic, honesty, objectivity, commitment
 - X** o **Impatient with delays** in new products or important company initiatives

IPO by SPAC: High Reward but with High Risk – Mitigation Matrix

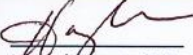
<u>TJR</u>	<u>ETH</u>	<u>JDM</u>	SG	JM	<u>GR</u>	LH	
X		X					7. A formal plan to grow rapidly by taking a dominant share of a growing medium-sized market versus a small share of a huge market, as explained by Peter Thiel in his book “Zero to One”.
X				X	X		8. Excellent gross margin , even at moderate product volumes—with the runway to dramatically reduce costs as competitors counterattack.
X				X	X		9. A second product on schedule with a credible R&D effort that may temporarily depress operating margins.
							10. A Silicon Valley technology company
X	X	X	X	X	X		11. A formal plan to meet street expectations —appropriately for either milestones or financials—for at least four quarters after becoming a public company.



3D Silicon™ Lithium-ion Battery

Enovix – Rodgers SVAC Merger

February 2021

	
Harold Rust, CEO	T.J. Rodgers, CEO
2/15/21	2/15/21
Date	Date


Created fear of failure:
slow decisions
defensive communication



Financials

Fully owned Fab-1 and Fab-2

Competitor Data¹

(All \$M unless noted)

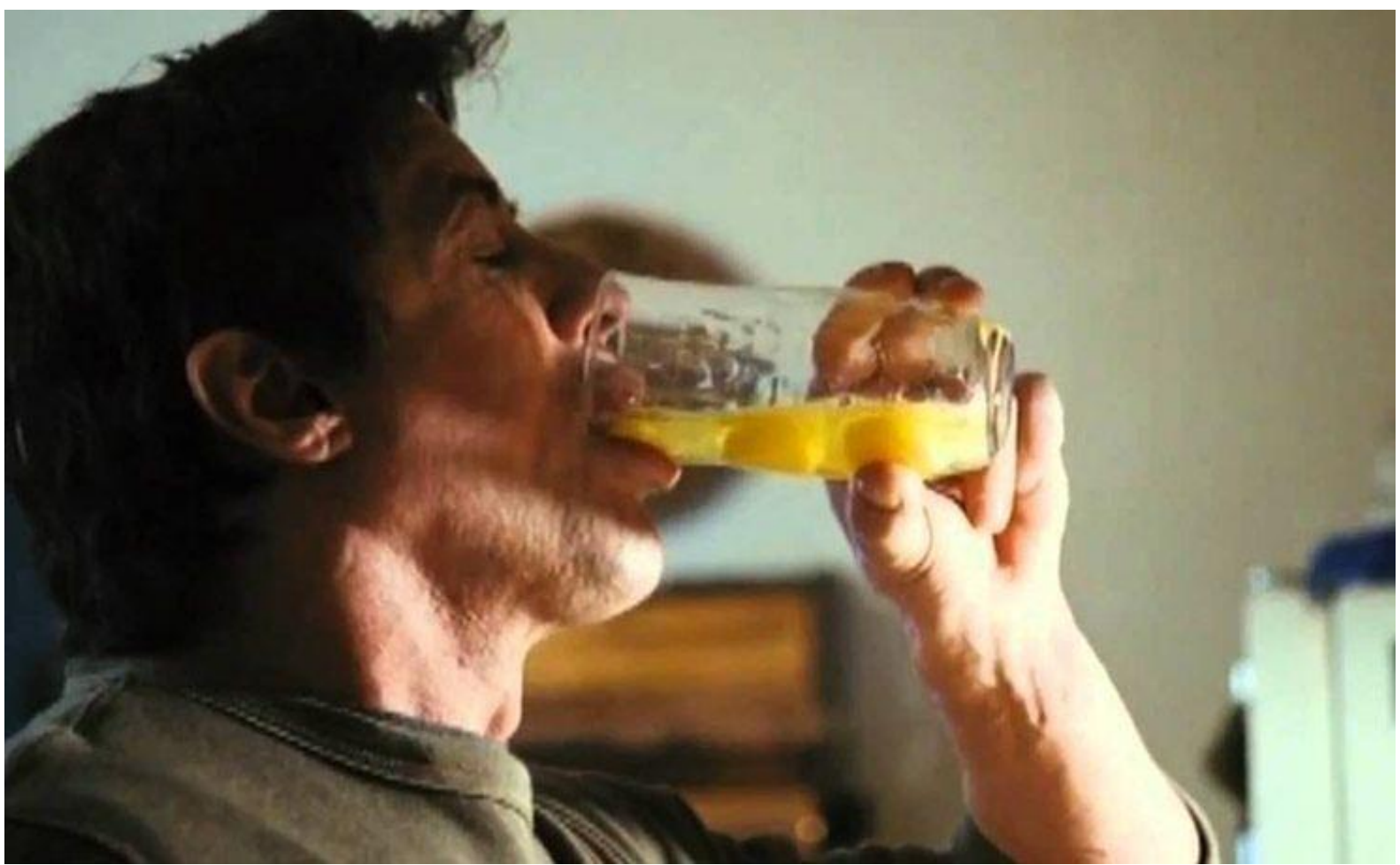
	2021	2022	2023	2024	2025	Low	High
Revenue	7 ² NRE	11 Mix	176 Four lines running in Fab1	410	801		
GM%			14%	46%	52%	20%	35%
Operating Expense	35	80 34 Manual lines 194 operators 80+ yield engs	47	83	157		
Opex%			26%	20%	20%	8%	13%
Operating Income	-31	-61	-21	105	257		
Op Inc%			-12%	26%	32%	12%	22%
EBITDA	-29	-49 55	6	140	314		
Capex	58	117 "Money poisoning"	87	156	80		
Free Cash Flow	-88	-165	-81	-16	235		
Cum Cash Flow Trough	-65	-230	-311	-327	-92		

We can't buy our way in. By analogy, we must walk into the ring – alone – for a 15-round heavyweight fight.

¹Avicenne 2019 factory data

² Non-recurring engineering (NRE) revenue







The SPAC provided a board with relevant knowledge



Greg Reichow – Advisor (**manufacturing, quality**)

- General partner of Eclipse Ventures
- SunPower: built and ran automated solar-cell plant
- Built and ran Tesla Fremont plant





Dan McCranie – Director (board governance, restructuring, **M&A**, **strategic planning**)

- 1966-2000: Multiple semiconductor EVP & CEO positions
- 2000-2020: Served on 10 semiconductor boards, avg 6.4 years
- **Chairman** of the two boards of Motorola, both **Freescale** and **ON**
- Six board positions involved significant restructuring, including the **multi-year restructuring of ON Semiconductor**



Manny Hernandez – CFO, Director (**financial controls, SEC, SOX**)

- CFO of both Cypress Semiconductor and SunPower
- Ran SunPower IPO and created financial infrastructure
- Chairman of audit committee, ON Semiconductor
- Chairman of BrainChip Inc. (an AI company)



TJ Rodgers – CEO (quality, culture, strategic planning, technology)

- **Dartmouth: Trustee Emeritus ('04-'12); Hazeltine Award, Physics & Chemistry MSEE, PhDEE Stanford 1975**
- **Founded Cypress Semiconductor; IPO 37 months after Series A funding**
- **Cypress CEO 34 years (1982-2016): sold to Infineon in 2018 for \$10.06 billion**
- **20 U.S. patents:** transistors, semiconductor processes, automatic mfg line
- **Harvard Business Review article and follow-up book “No Excuses Management” on business processes for \$0 to \$100 million in revenue**
- **Credited with saving SunPower with a \$750,000 personal check**
- **Chairman of SPWR at 2005 IPO (and at \$3.6 billion 2008 spinout)**
- **Enphase Energy turn around:** great product, fix the company
- **New Enphase CEO, ex-Cypress EVP Badri Kothandaraman**
- **Enphase operating margin driven up +30 %-points**
- **Share price increased from \$1.37 in Q1'17 to \$82.59 in Q3'20**

The Board Was Active

We started to address the PIPE plan miss in August 2022:

- 8/5** Board discusses CEO change; I informed Harrold Rust
- 8/24** **Launch of COO hiring** (Minh Pham)
- 10/3** Board discusses mechanism for CEO change; I informed Harrold Rust
- 11/1** TJR took over COO search to address No. 1 problem
- 11/2** **Q3'22 report & 40% share price drop**
- 11/4** Formal launch of CEO Search (JDM); I informed Harrold Rust
- 11/7** Appointment of TJR as **Executive Chair**; the “beauty contest”
- 11/10** **Hiring of Ajay Marathe as COO**
- 12/24** **Unanimous board committee vote to hire Raj Talluri as CEO**

CEO Harrold Rust



B.S. Mech. Eng. UC Davis, MSME Stanford

FormFactor: VP Operations 2002-07,
IPO 2003, \$369M revenue 2006

IBM: 17 yrs operations, ran disk-drive fab

94 patents, plus 63 pending

Co-founded Enovix:

Raised \$789 million

Created \$1.9 billion market valuation

Guiding Principles 2023 AOP

(Rev. A, 11/27/22)

The AOP is Late: It needs to be wrapped up: 1st draft, 12/1; 2nd draft, 12/22; final draft, 1/19; presentation, 1/26 board meeting

The major assumptions in the AOP must be clearly stated in writing

AOP financials and milestones should have **80%-plus achievability**

EPR-PCR system methodology must be fully **specified, signed** by TJR before anymore POs are placed. All manufacturing equipment must be compliant with the EPR-PCR spec

“Gaming” the EPR-PCR spec will result in termination

Fab 1 must become “economically important” (not necessarily profitable) with at least \$1 million in revenue and a satisfied customer disclosing that our batteries enable an important product

Fab 1 must create and remain on a detailed **board-approved** AOP 2023 manufacturing plan

Fab 2 must demonstrate an **economic viability plan** to the board before it is launched

Gen 2 line must work (**fully EPR-PCR compliant**) as agreed to in writing by Minh Pham before the board approves POs

Gen 2 equipment **owners** will **prove to the board** that they have embedded all the learning from Gen 1 line failures

The company will prioritize putting BrakeFlow into production as quickly as possible on the Gen2 line

New Technology Plans: All R&D projects must have specified NTPs and be currently on schedule and fully staffed

COO Ajay Marathe



M.S. Industrial Engineering (Texas Tech)

AMD (23 years)

Thailand plant manager (6M units/wk)

VP Ops: Computation Products (2,500 people)

VP Ops: Asian Assy & Test (4 plants)

CEO: AMD, India LLC

Lumileds (10 years)

COO (\$1.4B lighting company)

Western Digital (\$17B data storage company)

SVP Global Ops

COO Ajay Marathe Initiatives

(First 49 days)

Ownership & accountability — every rejected unit; every down machine has an “owner”

Machine-centric yield plans – specific actions with co-owners (maintenance, engineering, operations)

Cost of Non-quality program — detect problems earlier; drive down value of scrapped units

DFM (Design For Manufacturing) - balance yields with tolerances without compromising performance

WIP count discipline on MES – every unit is accounted for

Japanese 5S cleanliness & order program – pride in everything we do

WCS (World Class Supplier) program - Supplier senior executive relationship development

Limit remote work

Re-organized manufacturing

	<u>Before</u>	<u>After</u>
Managers	61	49
Layers	6	5
Output	4,442(Q4)	9,000E(Q1)

2023 Manufacturing Guiding Principles

- PoC** Proof of Concept: process to make **equipment “heads”** to be validated (for stacking, etc.) and then automated
- R&D line** Existing **manual Fremont line** that makes 20 batteries per day with Line 1 PoC equipment
- Line 1** Existing **Fremont wearables line** using PoC equipment, but non-functional automation (550 UPH → 100 UPH)
Will make **180,000 full-production, revenue-quality** units in 2023
Will continue to be used for the **production** of wearable batteries:
- Yield** 0% Jan-April, 42.5% now, plan to be at 60% in Q4’23
- Line 2** Existing **Fremont partial line** for **cell phones** that only does laser cut and stack with PoC equipment
Line 2 units will be sealed and tested in the existing Fremont facility
Line 2 will be activated and make 5,688 units in 2023; then **obsoleted by Gen2**
- Gen2 Line** Uses mostly PoC heads from Line 1, but with more parallelism and faster automation (1,350 UPH)
Nameplate capacity **9.5M units/yr @ 80% OEE when ramped**
Will go to **Fab 2, an existing SE Asian, low-cost site** (to be announced in July 2023):
Design is completed and will be **board-approved by March 15, 2023**
Will be **delivered to Fab 2 in Nov 2023**; there will be **four Gen2 lines in Fab 2 by Q4’24 (funding required)**
- Agility Line** A **new fast-turn Fremont R&D line** with Gen 2 components; **obsoletes R&D line**

“I would actually like to see you run all out for Gen1 no matter what it costs to get higher volume. So be it. Even if you did it in a terrible cost structure you could prove you can manufacture. I don’t care if you have to build them by hand.” – Shareholder

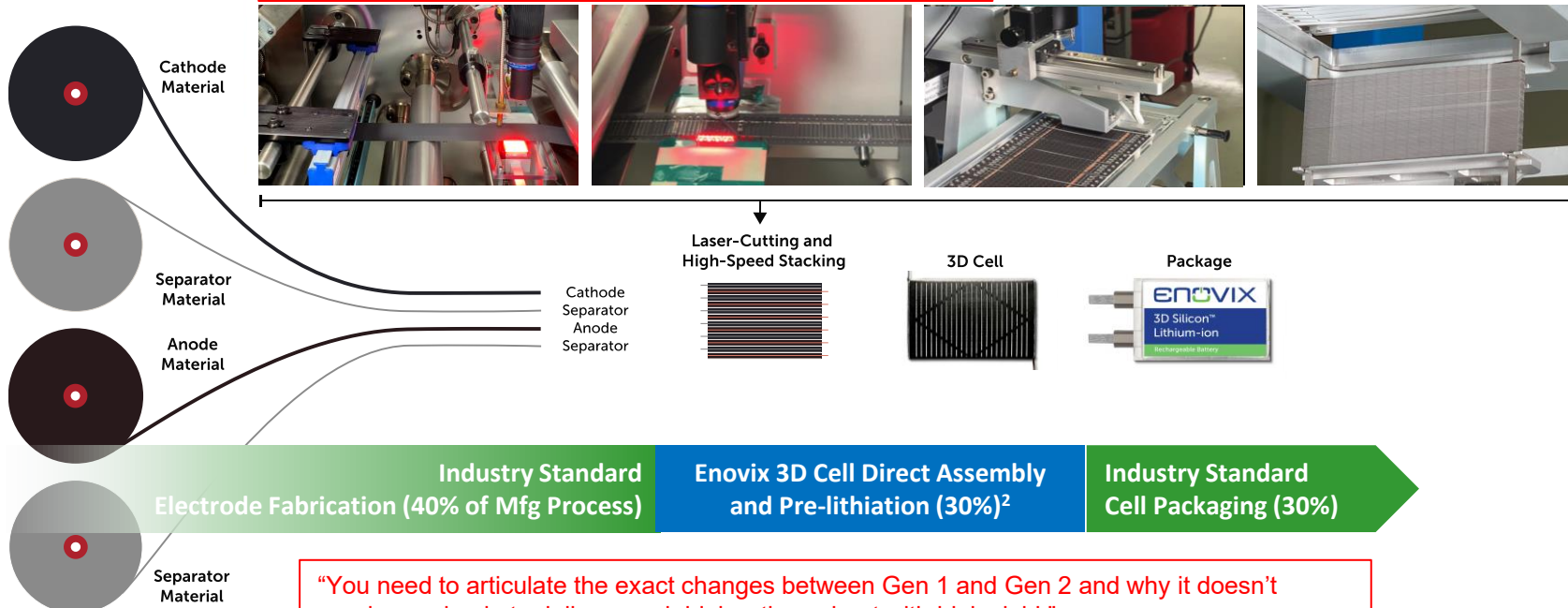
“Selecting the Fab location is a powerful thing.” – Shareholder

Fab-1 Will Make a 3D Battery Every 2.0 Seconds¹ (4 lines)

“The real problem is execution. By my math Fab-1 is doing less than 10% of what it should be doing.”

– Shareholder

4.1 2 lines @ 550 UPH, 80% OEE
 22.5 2 lines @ 100 UPH, 80% OEE
 72.0 2 lines @ 100 UPH, 25% OEE



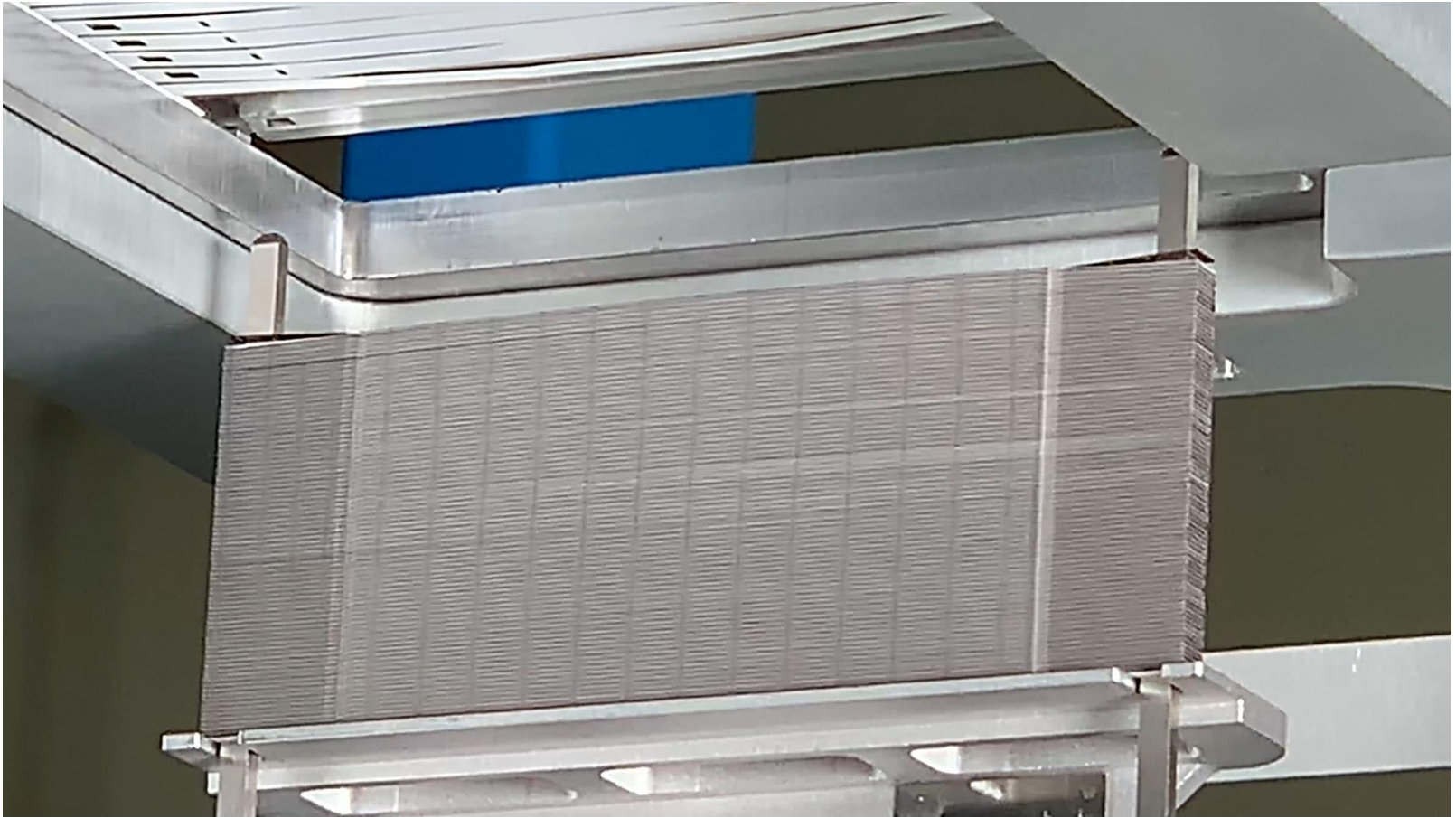
“You need to articulate the exact changes between Gen 1 and Gen 2 and why it doesn’t require a miracle to deliver much higher throughput with high yield.”

– Shareholder

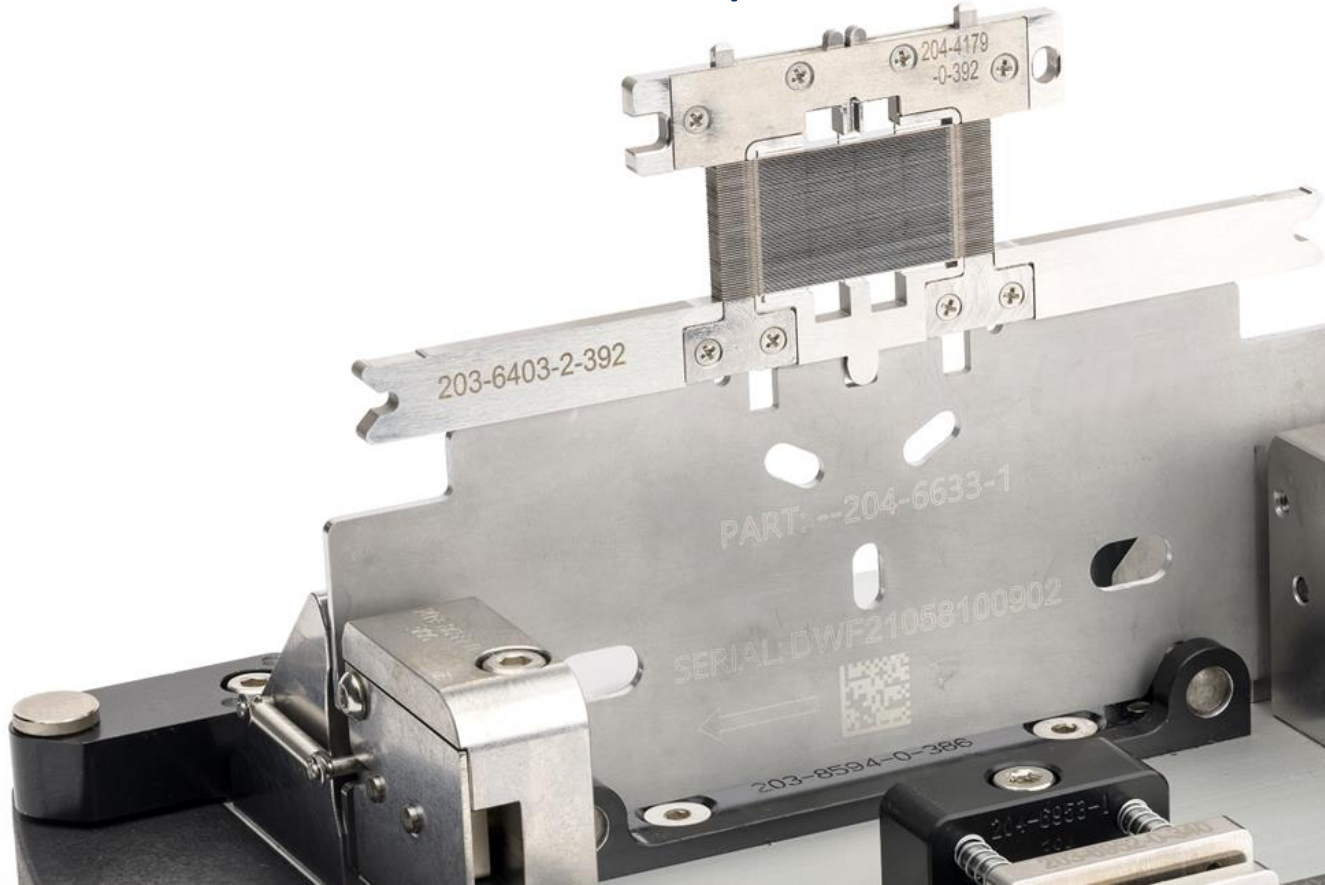
Anode PoC Stacker Head



Stacker PoC Head (Side View)

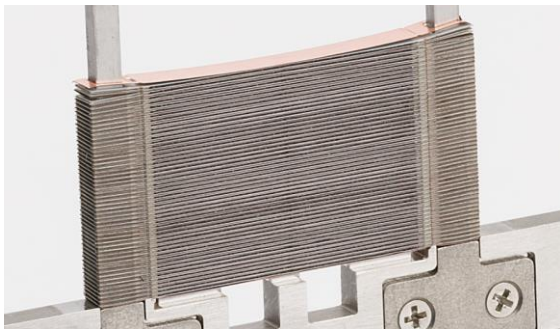


Stacker Battery Fixture

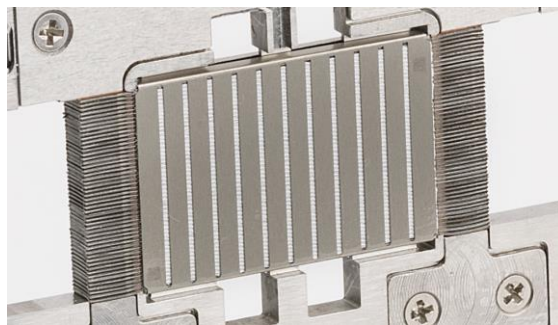


Subsequent Steps

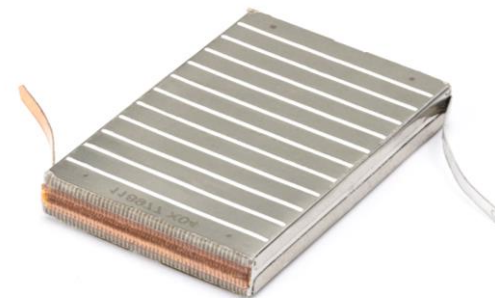
Electrode Stacking



Constraint Application



Interconnect



Heads are what make the battery: Gen 2 vs. Gen 1 is about how many heads there are and how they are transported, not redesigning the heads.

Stacker Battery Transport

Gen 1 Conveyor Belt – 100-micron Precision



Gen 2 vs. Gen 1 Lines

<u>Parameter</u>	<u>Gen 1</u>	<u>Gen 2</u>
Placement	Conveyor belt (100 μ)	Linear motors (20 μ)
Parallelism	3x wide (laser)	Up to 12x wide (vacuum bake)
Metrology	7 stations	30 stations
Cost	\$30M	\$55M
UPH	550 (200 achievable)	1350
Depr./unit ¹	\$1.12 (\$3.08)	\$0.84
Heads	45	120
Heads redesigned		13 (3 types)

Gen 2 Heads Are Mostly Reused Gen 1 Heads

Zone	Process	Gen 1	Gen 2	Comments	
Zone 1	Cathode	3	5	same vendor, up to 1KW	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="width: 20px; height: 10px; background-color: #90EE90; margin-bottom: 5px;"></div> no/small change <div style="width: 20px; height: 10px; background-color: #FFFACD; margin-bottom: 5px;"></div> minor redesign <div style="width: 20px; height: 10px; background-color: #FFB6C1; margin-bottom: 5px;"></div> major redesign </div>
	Anode	3	5	same vendor, up to 1KW	
	Separator	1	3	same vendor, up to 1KW	
	Laminator	1	1		
Zone 2	Stacker start	1	1	End Plate + Stack start	
	Stacker Mid	3	7		
	Stacker End	1	1	End Plate + Stack end	
	End Plate Insert	1	0	Gen 2 integrated into start/end	
	AO Print	2	4		
	Constraint Install	1	3		
	Constraint Bake	1	12	Smaller ovens	
	Constraint Weld	2	4		
	Tab Tear	2	4		
	BB Insert	0	6	Gen 1 manual insertion	
	BB Weld	2	4		
	DSR	0	3	Gen 1 manual tool	
	Slot Fill	0	4	Gen 1 manual tool	

Gen 2 Line Changes

Zone	Process	Gen 1	Gen 2	Comments
Zone 3	Vac Bake	3	4	Gen 2 smaller bake
	Tab Weld	1	4	
	PPL	1	6	
	██████	1	6	
	Pouching	1	2	
	E-Fill	1	4	
	██████	1	4	
	Degas	1	4	
	Trim	1	4	
	Glue & Fold	1	4	
Zone 4	OCV1	1	1	
	First Charge	1	1	
	Buffer	1	1	
	OCV2	1	1	
	Formation 2	1	1	
	Aging	1	1	
	OCV 3	1	1	
Zone 5	Inspection (x;y;z -check)	1	1	
	X-ray	0	1	
	Sorting	0	1	Gen 1 no sorting tool
	Packing	1	1	

no/small change
 minor redesign
 Major redesign

“You could have a slide that shows that all the steps are the same and that this doesn't require a total recalibration.”
– Shareholder

Our (new) Chief Designer

Former member Romanian Naval Special Forces



“The Right Stuff” (Russians beat the first U.S. astronaut to space)

“He had to keep smiling and aw-shucking and playing Mr. Modest, just as if it might, in fact, be he who was going up on top of the rocket on May 2 as the first man in the world to risk the mighty shot into space.

“And then early on the morning of April 12, the fabulous but anonymous Building of the Integral, Chief Designer of the Sputniks, struck another of his cruel but dramatic blows. Just twenty days before the first scheduled Mercury flight he sent a five-ton Sputnik Called *Vostok 1* into orbit around the earth with a man on aboard, the first cosmonaut, a twenty-seven-year-old test pilot named Yuri Gagarin. *Vostok 1* completed one orbit, then brought Gagarin down safely, on land, near the Soviet village of Smelovka.

“It was as if the Soviets’ Chief Designer, that invisible genius, was toying with them.”

Gen 2 Line Milestones (changes in green)

Milestone	Number	2023				2024			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EDR2—Design Apv'd	34		17	17					
PO—Purchase Order	7	7 ¹	7						
FAT—Factory Test	34			12	4	18			
Installation	34				16	18			
SAT—Site Test	34					24	10		
PCR2—Line Functionality	34							34	
ES10—Samples	1,000							1K	
PCR3—Line Production	34								34
QS100—Qual Samples	10,000							10K	
P10K—Production	100,000							100K	
								600K ²	


Ajay Marathe

Raj Talluri

T.J. Rodgers



FAB 1 Weekly Yield Executive Review Meeting


Yield/Integration
2022 WW52

Module Weekly Yield

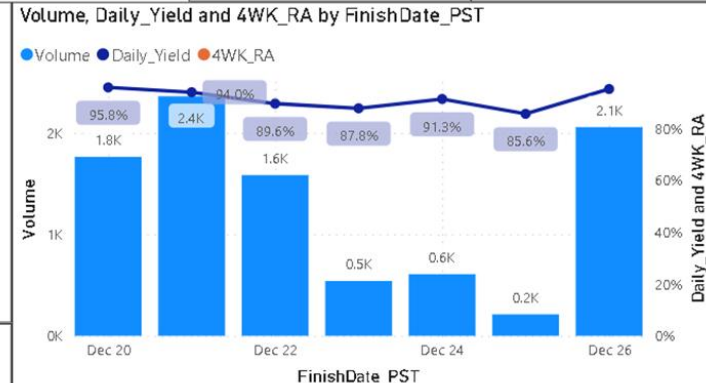
M2. STACKING

Module
02.STACKING

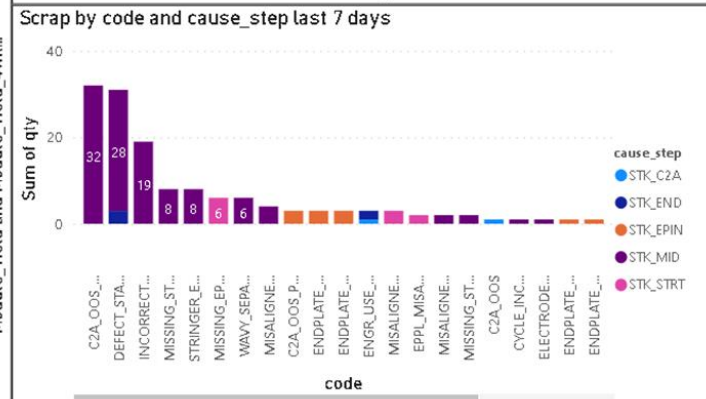
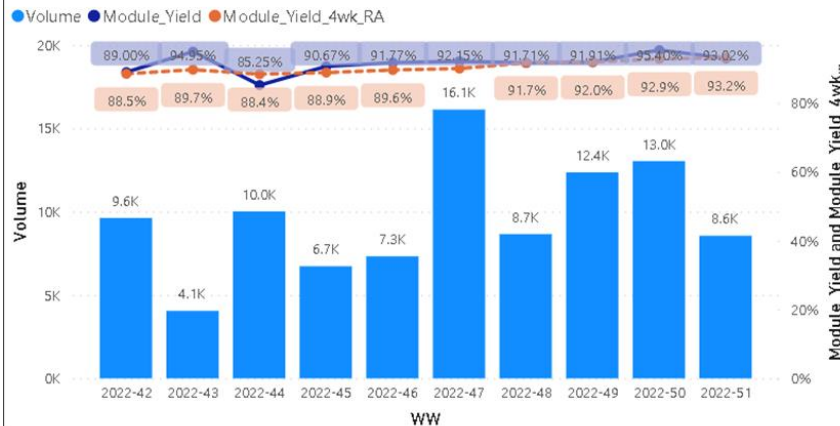
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Filters

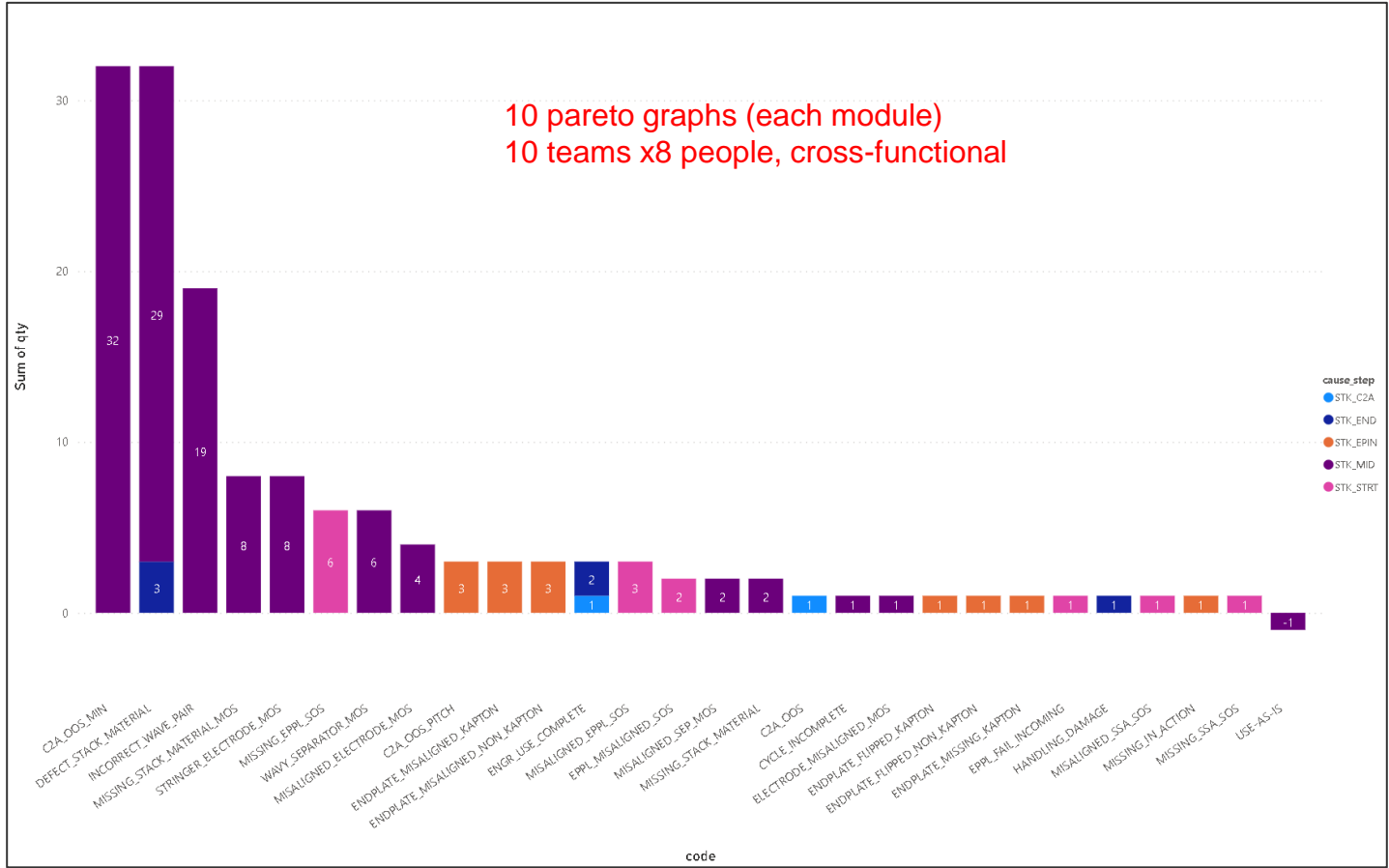
SeqStep	12/20/22	12/21/22	12/22/22	12/23/22	12/24/22	12/25/22	12/26/22
1-STK_START	98.79%	99.54%	99.50%	99.07%	100.00%	87.50%	99.51%
2-STK_MID	98.34%	95.78%	90.32%	90.24%	91.35%	97.85%	96.14%
3-STK_END	99.72%	99.38%	100.00%	100.00%	100.00%	100.00%	100.00%
4-STK_EPIN	99.17%	99.17%	99.66%	98.17%	100.00%	100.00%	99.51%
5-STK_C2A	99.72%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%



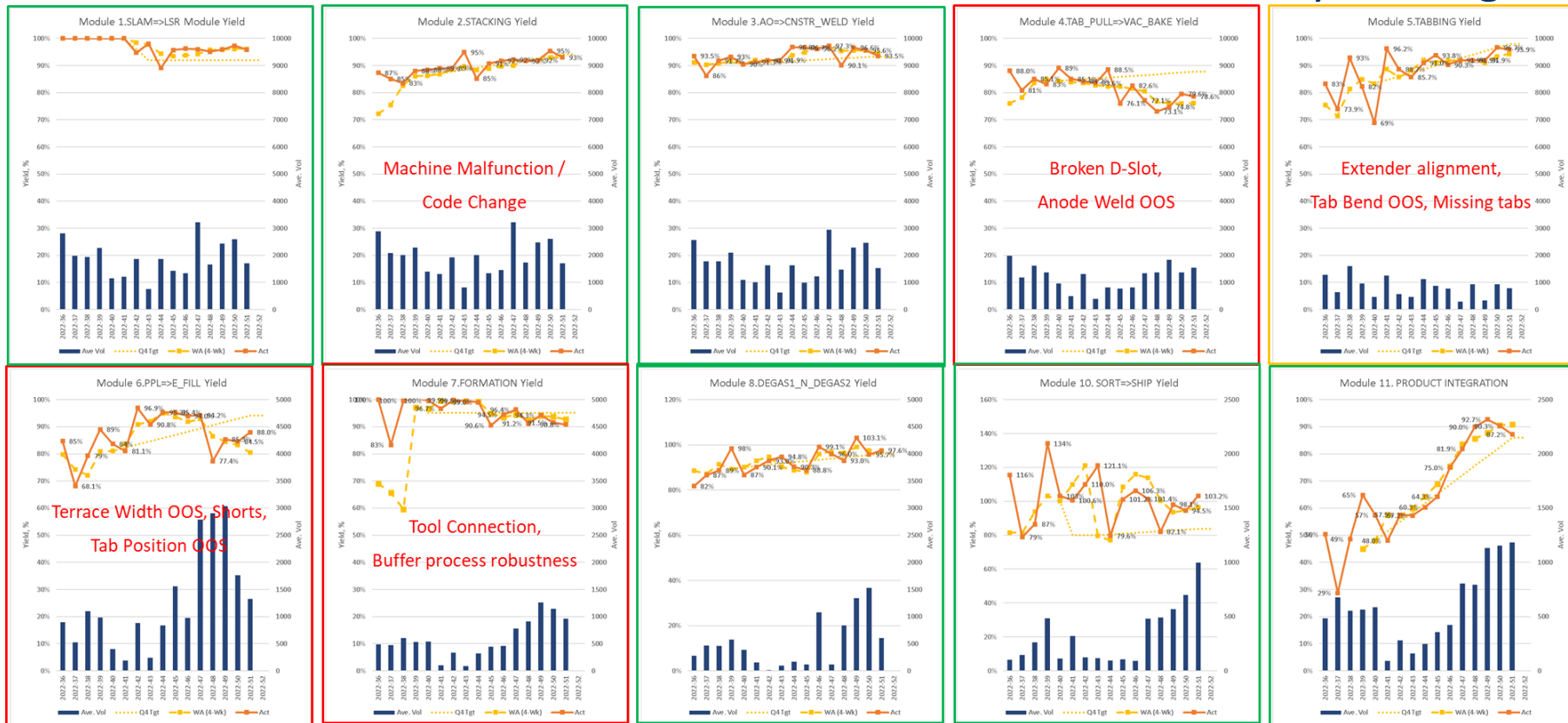
Volume, Module_Yield and Module_Yield_4wk_RA by WW



Scrap by Code and cause_step last 7 days



10-Panel Module Charts-6 / 10 modules meets or exceed Q4 yield target



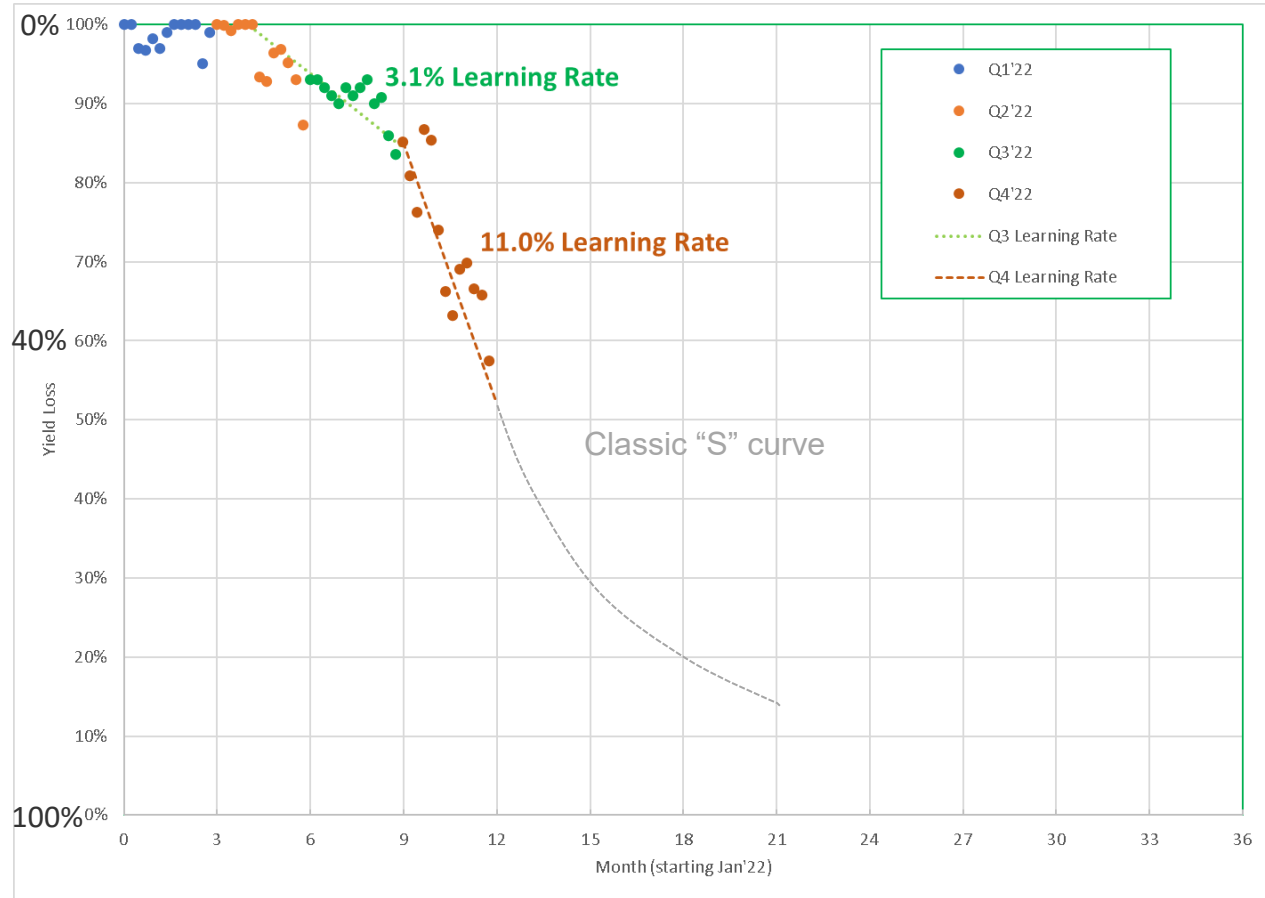
High Risk

Medium Risk

Low Risk

Yield learning rate accelerated in Q4

Yield





FAB 1 Weekly Yield Executive Review Meeting

Our yield team is very competent and making good progress

████████████████████
Yield/Integration

2022 WW52



TAM DOE Requirements for Safety and Accelerated Lifetime (ALT) Testing

206513 Rev A

Safety and Accelerated Lifetime (ALT) Testing

5.1.3 Each test level will require between 5 and 25 cells to complete the test. **Table 1** shows the quantity of cells required for each test level and the total number of cells required to complete the entire set of tests.

	Different Test Levels	Cells per Test Level	Total Cells required
ESC	10	10	100
High Temp Soak	7	10	70
Overcharge	20	5	100
Drop	3	25	75
Pinch	2	20	40
Crush	6	20	120
Impact	6	5	30
Nail Pen	4	15	60

Other specified tests:

595

Safety and accelerated lifetime	595
Safety/lifetime margin	200
UN38.3 (airplane shipping)	40
UL1642 (consumer-US)	70
IEC-62133 (consumer-Europe)	125
(Various other country specifications)	

These tests must be repeated every time a cell changes.

SVP Sales and Business Development Ralph Schmitt



B.S. Electrical Eng. (Rutgers)

Joined Enovix 2021

Turnaround CEO (16 Years)

Exar-Sipex – Power Analog

PLX Technology – Networking (acquired by Broadcom)

OCZ Technology – Solid State Drives (acquired by Toshiba)

Sensera – IoT MEMS Sensors

Cypress Semiconductor (6 Years)

EVP Sales, Marketing and Business Development


Specializes in new market development and customer acquisition

Customer Funnel – Dec '21

“Design wins translating to Customer Purchase contracts would be useful value drivers – which give investors a better line of sight on revenue path forward.”

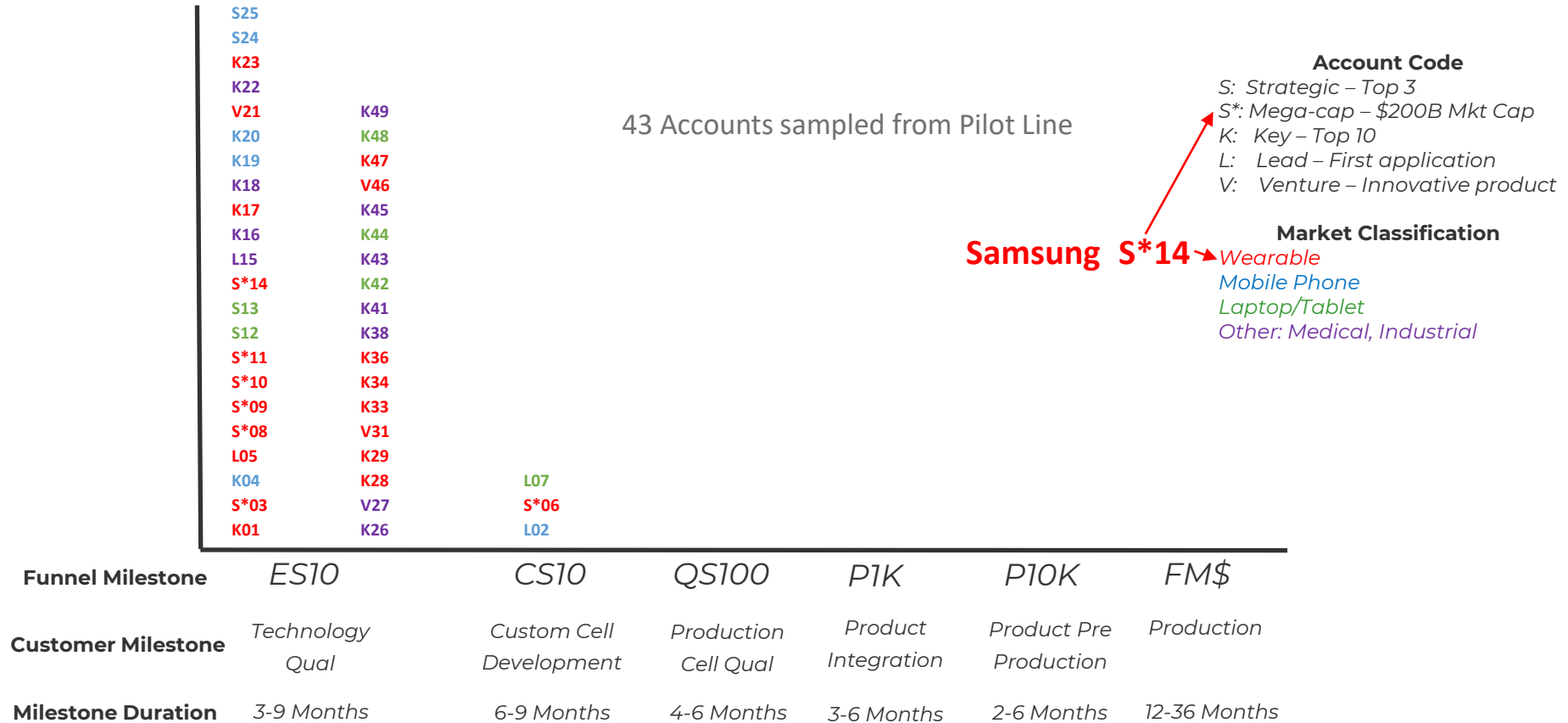
– Shareholder

Customer Funnel – Dec '21

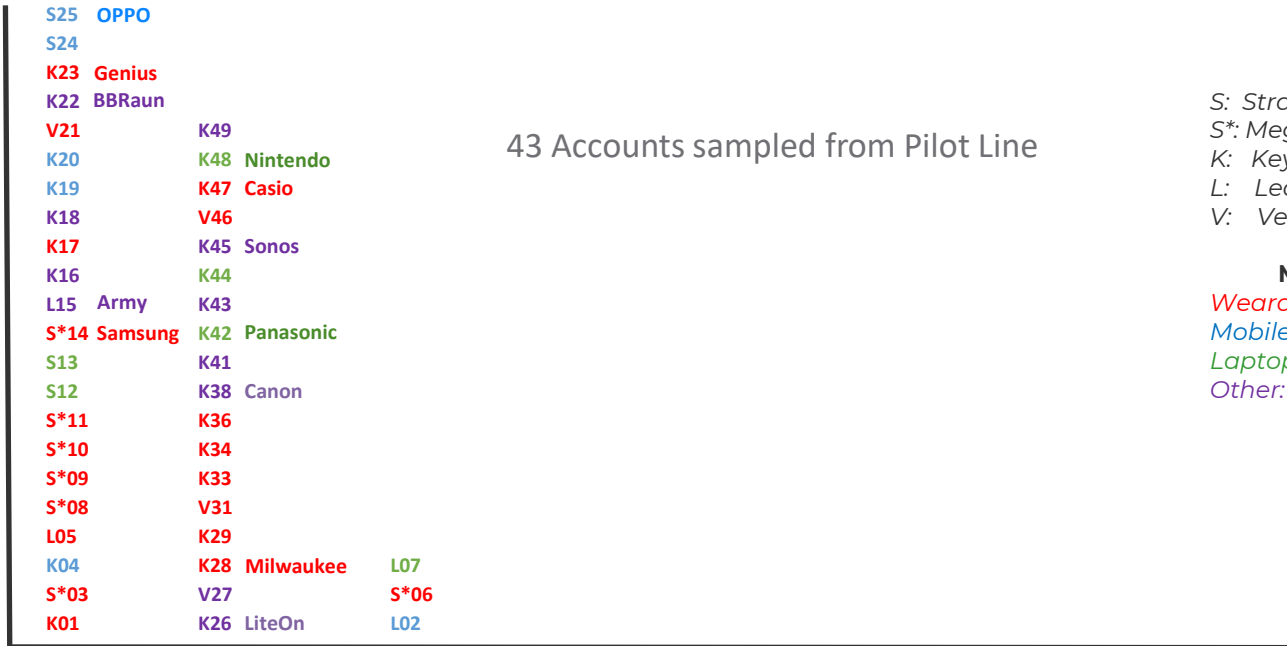


Funnel Milestone	<i>ES10</i>	<i>CS10</i>	<i>QS100</i>	<i>P1K</i>	<i>P10K</i>	<i>FM\$</i>
Customer Milestone	<i>Technology Qual</i>	<i>Custom Cell Development</i>	<i>Production Cell Qual</i>	<i>Product Integration</i>	<i>Product Pre Production</i>	<i>Production</i>
Milestone Duration	<i>3-9 Months</i>	<i>6-9 Months</i>	<i>4-6 Months</i>	<i>3-6 Months</i>	<i>2-6 Months</i>	<i>12-36 Months</i>

Customer Funnel – Dec '21



Customer Funnel – Dec '21



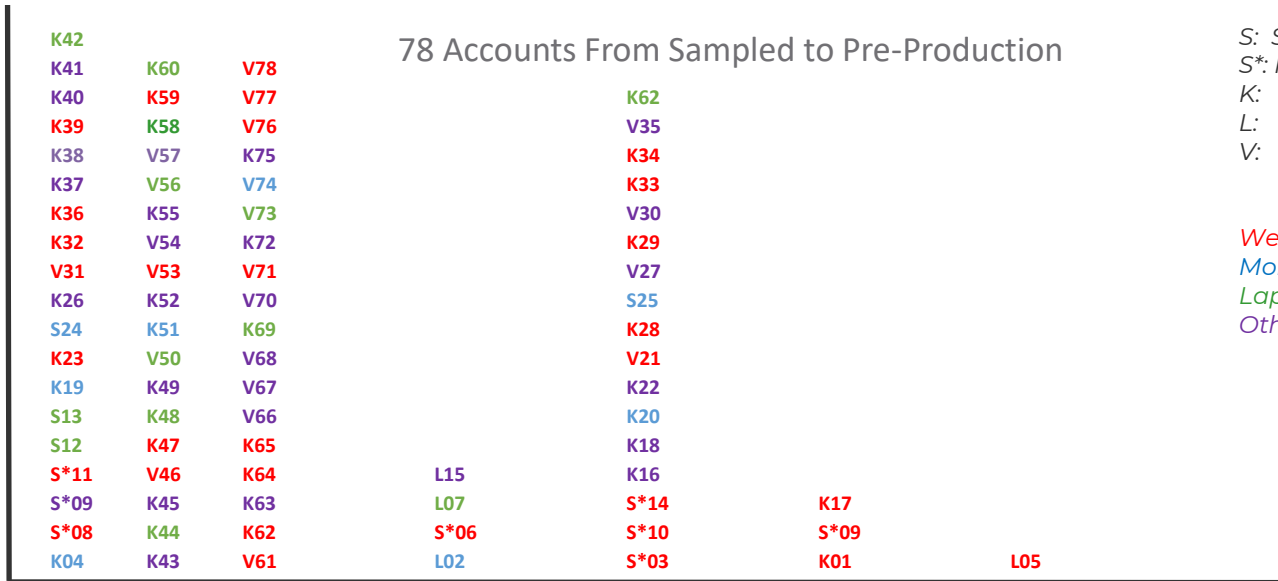
Account Code
 S: Strategic – Top 3
 S*: Mega-cap – \$200B Mkt Cap
 K: Key – Top 10
 L: Lead – First application
 V: Venture – Innovative product

Market Classification
 Wearable
 Mobile Phone
 Laptop/Tablet
 Other: Medical, Industrial

Funnel Milestone	ES10	CS10	QS100	P1K	P10K	FM\$
Customer Milestone	Technology Qual	Custom Cell Development	Production Cell Qual	Product Integration	Product Pre Production	Production
Milestone Duration	3-9 Months	6-9 Months	4-6 Months	3-6 Months	2-6 Months	12-36 Months

Customer Funnel – Dec '22

Fab1 Enabled Progression to QS100, P1K and P10K



Account Code

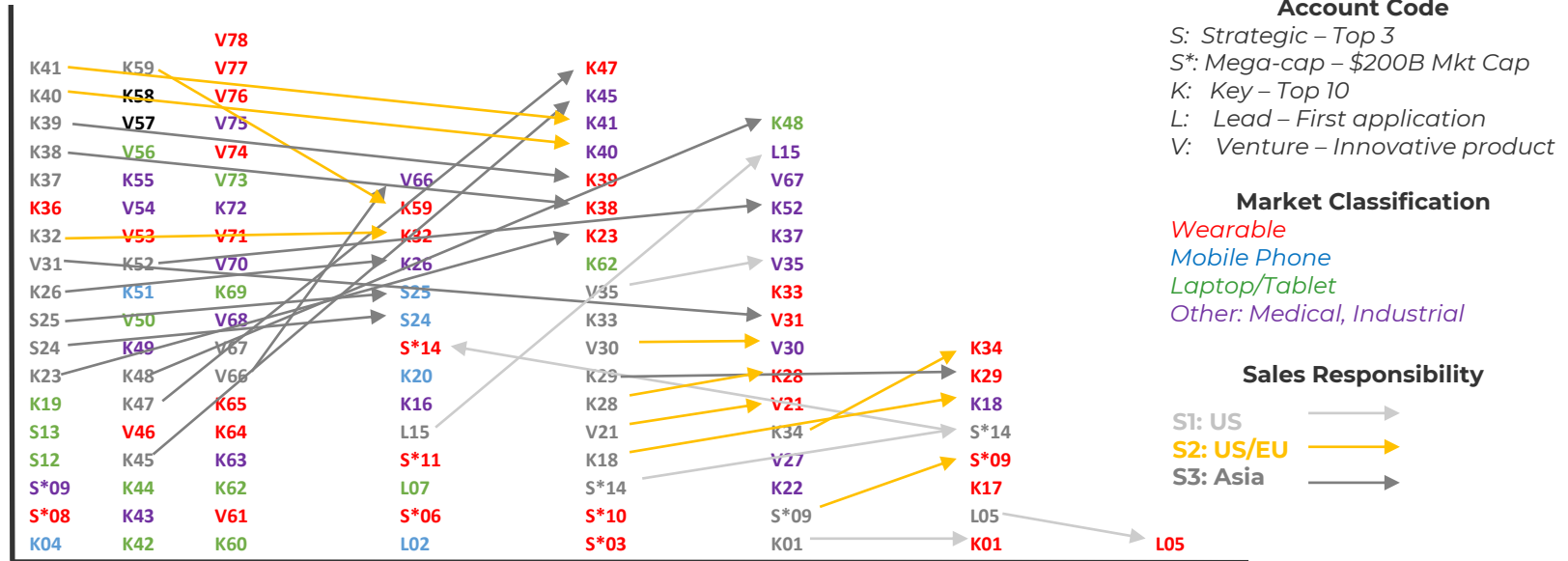
- S: Strategic – Top 3
- S*: Mega-cap – \$200B Mkt Cap
- K: Key – Top 10
- L: Lead – First application
- V: Venture – Innovative product

Market Classification

- Wearable
- Mobile Phone
- Laptop/Tablet
- Other: Medical, Industrial

Funnel Milestone	ES10	CS10	QS100	P1K	P10K	FM\$
Customer Milestone	Technology Qual	Custom Cell Development	Production Cell Qual	Product Integration	Product Pre Production	Production
Milestone Duration	3-9 Months	6-9 Months	4-6 Months	3-6 Months	2-6 Months	12-36 Months

Customer Funnel Plan 2023



Funnel Milestone

ES10 CS10 QS100 P1K P10K FM\$

Customer Milestone

Technology Qual Custom Cell Development Production Cell Qual Product Integration Product Pre Production Production

Milestone Duration

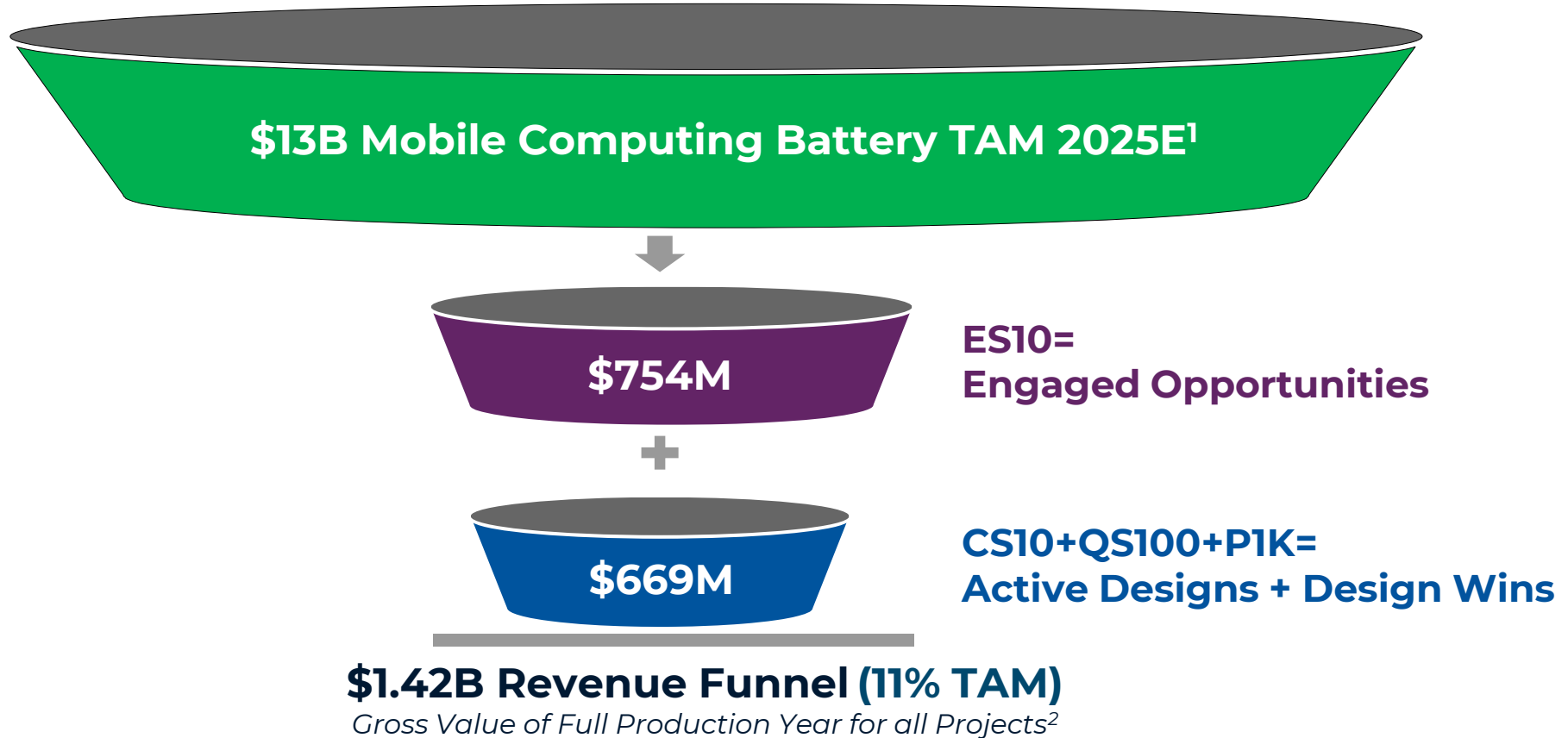
3-9 Months 6-9 Months 4-6 Months 3-6 Months 2-6 Months 12-36 Months

2022 Feb1: 8812 Cell Shipments to Customers

Shipments by customer code

Customer	# of Cells	Customer	# of Cells
D01	3000	K29	30
L05	1608	K31	30
S24	1125	K32	30
S*09	730	S*03	26
K33	300	V91	24
K34	300	K38	18
S*06	300	K23	15
X1	275	S25	15
K01	250	X3	12
K17	100	X4	11
S*11	100	V35	10
S*14	100	X6	10
V21	100	K36	6
K28	50	K19	5
L07	50	K37	5
S*08	50	K39	5
V30	40	S*10	5
V77	37	X2	5
K26	30	X5	5
		Total	8812
		Q1	233
		Q2	1135
		Q3	3002
		Q4	4442

Funnel Statistics – Dec '22



CEO Raj Talluri (1/18/23)



Ph.D. Electrical Eng. (U.T. Austin)

Micron (2018-2022)

SVP/GM; Mobile Business Unit (\$6B/yr)

Qualcom (2009-2018)

SVP: Qualcomm IoT (>\$1B/yr)

SVP: Qualcomm CDMA

T.I. (1993-2009)

GM: OMAP and wireless product lines

GM: Imaging and audio

BU Mgr: Digital still cameras

Mgr: Video DSP (R&D)

MTS: DSP (R&D)

Specializes in new products, business unit management and **business processes**

Conclusion

Fab 1 is finally working

8812 Units shipped – zero quality returns

Yields improved to 40% and rising

Experienced new COO: Ajay Marathe

Will ship 180,000 units in 2023

Gen 2 will be board-approved 3/15/23

Common PoC heads, faster automation (1350 UPH)

Gen 2 will be installed in Fab 2 in **SE Asia in Q1'24**, 4 lines by Q4'24

Gen 2 ES10 samples 4/15/24

We have a stellar new CEO who will

Refine strategy, install R&D processes and instill a P&L mentality

AND



Appendix Final

Executive Summary:

- 38 years career spanning Semiconductor, Solar; Opto Electronics and Storage industries
- Diverse Leadership portfolio from Chief Operating Officer to Corporate VP Operations to CIO to President of an Emerging Region
- Currently managing \$8 Billion Direct Material spend plus \$3 Billion IDM spend for WDC
- Managed over 6,000 workforce across 7 countries; 3 Continents with an Annualized Budget of \$1 Billion as COO and co-executive sponsor of a \$500M Specialty Business at Lumileds
- Managed over 3,000 workforce across the world as CVP Operations, at AMD for over 20 years. Built Factories in Singapore (2002); Penang (2003); Suzhou (1999) and Bangkok (1990); Ran all of Supply Chain and Procurement for AMD including start-up of Fab30 in Dresden; Ran Corporate IT for AMD
- Unique "start-up" experience in a Multi-National where team grew from 3 to 100 and Revenue from zero to \$100M as President, AMD India
- Recognized by Academic Institutions as well as Trade Magazines as one of the Highly Distinguished Executives

Experience:

Oct 2021 to date:

Senior Vice President, Global Operations

Western Digital Corporation, San Jose, CA

Western Digital Corporation is a Fortune #217, \$17B global provider of solutions for the collection, storage, management, protection and use of digital content, including audio and video. The Company's products include hard drives, solid-state drives, and home entertainment and networking products.

Responsibilities:

- Manage Global Procurement: Approx total Direct Material spend of \$6 Billion; over 3,000 suppliers worldwide for both Hard Disk Drive BU and Flash BU; Manage overall Indirect Material spend of approx. \$3 Billion including all Capital expenditure; Real Estate development and all other IDM categories
- Manage Global Supply Chain for the corporation with 9 factories across the world and key JV for Wafer production in Japan.
- Manage all outsourced Manufacturing partners for both Front end (TSMC/UMC/GF/Others) and Back end (PTI;ASE; UTAC; Cal Comp; QSI; others)
- Key Focus areas: No line down due to material shortages – supplier resiliency; DIO <60 days; Keep/increase wafer allocations in spite of supply shortages; keep expedite fees/ premiums to a minimum

Oct 2011 to Oct 2021:

Chief Operating Officer

Lumileds LLC, an Apollo Management Co. San Jose, CA

Lumileds is a \$1.4B lighting company that develops, manufactures, and distributes LEDs, light bulbs, and related products for automotive lighting, general lighting, and specialty lighting. Originally a HP/Philips JV, Lumileds now operates as a private company, owned partially by Apollo Global Management and Philips

Responsibilities:

- Manage the 3 LED Manufacturing sites – Epitaxy Fab in SJ; Wafer Fab in Singapore and Backend Assembly and Test operations in Penang, Malaysia

- Manage 6 Automotive Lamps and Accessories Manufacturing sites – 4 in Europe and 2 in China – Jiaxing and Songzi
- Manage internal Phosphor powder and Garnet ceramic manufacturing site in Aachen, Germany
- Workforce of over 5,000 Direct Labor; 1000 Engineers and Technicians and over 400 Support personnel

Functions managed:

- Manufacturing; Product/ Yield and Test Engineering; Supply Chain; Procurement; Quality/Reliability; Color Control Engineering and, IT/HR/ Finance for Operations on a dotted line basis
- Over \$1.2B of annual spend and ~ \$80M Capex budget (FY19)
- Managing Operational Excellence via a DIMES program – an acronym for Design for Manufacturability; Integral Yields; Materials Cost down; Equipment Effectiveness and Supply Chain Excellence
- Delivering over \$100M cost reduction year over year for past 9 years; staying ahead of the ASP reduction
- Instrumental in turning the company around from 2011 to 2018 and making Lumileds the only company in the top 10 LED companies that grew year over year in the tough business environment; remaining continuously profitable for 11 quarters in a row from Q3 2013; recently facing Auto Business headwinds
- Co-Executive owner of the relationship with a key US customer making Smart Phones, managing to remain the majority provider for Camera Flash LEDs in the face of major competition. Over \$2B revenues; >\$1B net margin business over last 6 years
- Technology Development worldwide including:
 - Epitaxy Development group in SJ
 - Die and Device architecture group in SJ and Singapore
 - Phosphor Development group in Aachen; SJ and Malaysia
 - Packaging Development and Engineering group in SJ and Malaysia
- Total Development Budget of approx. \$70M; 200 Engineers

Oct 2009 to Oct 2011 :

Senior Vice President, Operations

Solaria Corporation, Fremont CA

Solaria Corp operates as a solar technology company. The Company designs, develops, and manufactures crystalline solar modules which leverages automation technologies and generates solar energy for residential and commercial solar markets.

Responsibilities:

- Create and manage Operations; Process Engineering & Automation and Supply Chain teams in Fremont and India
- Establish strategic supply relationships with key direct material suppliers (Glass; Solar cells; EVA and Backsheet), mostly in China
- Supply contracts with guaranteed baseline volumes; upside flexibility and High volume pricing in spite of low loading today
- Contract Manufacturing partner selection and set-up
- Manage CM operations KPI including yields; key SPC indices and Unit cost
- Conceptualize Process Automation; select Automation supplier and award business
- Buy-off Automated equipment and implement in HVM production – Fremont and Hyderabad, India
- Ramp production from few modules a day to 3 MW in Q3 2011 to 100 MW in 2012
- Company Fund raise. Round D = \$55M; Current round = \$30M. Became part investor in the company prior to round D in 2010.

Nov 2007 to Feb 2009:

Chief Executive Officer

Semiconductor Group

Reliance Industries Ltd (Ranked #1 Marketcap corporation in India)

Reliance Industries Ltd (RIL) is a diversified company headquartered in Mumbai India, with business interests in energy, petrochemicals, textiles, retail, entertainment, materials and telecommunication sectors with a gross annual revenue of over \$100B

Responsibilities:

- Create the Company Vision and Mission and prepare a complete Business Execution Plan and strategy for an "in-organic" entry for RIL into the Semiconductor Manufacturing Business
- Convince the RIL Board of Directors of "Buy first Build Later" strategy
- Attract, top notch talent of senior executives for key positions in the company – the "Start-up" team
- Create a "Unique" Business model of engagement with targeted top tier IDMs who would be potential business partners with RIL as they get "Asset Smart"
- Work with the Government of India and potential Private Equity firms and large multi national Banks to secure financing

Feb 2007 to Nov 2007:

Chief Operating Officer

SemIndia USA Inc., Santa Clara CA

Responsibilities:

- Create the Company Vision and Mission and prepare a complete Business Plan and strategy to establish SemIndia as the First Integrated Semiconductor corporation in India
- Attract, top notch talent of senior executives for key positions in the company – the "Start-up" team
- Create a "Unique" Business model of engagement with targeted top tier potential customers
- Take ownership of the Supply Chain for SemIndia systems to ensure profitable growth and Delivery to Promise
- Carefully select the Technology partner for the proposed Wafer Fab Operations, negotiate the overall transfer agreement and lock down the roadmap from 90nm thru 45nm/300mm.
- Work with the Government of India and potential Private Equity firms and large multi national Banks to secure financing for the SemIndia Assembly and Test and SemIndia Wafer Fab Operations

April 1984 – Jan 2007

Advanced Micro Devices

Advanced Micro Devices Inc (AMD), a Fortune #56 \$110B marketcap company, is a manufacturer of semiconductor products. The company designs, manufactures, develops and markets high-performance computing, graphics, and visualization technologies.

Dec 2004 to Feb 2007

Corporate Vice President & President, AMD India (Expatriate position)

AMD India Ltd, Bangalore, India

Responsibilities:

- Establish Sales, Marketing, Business Development groups from ground up (Total team size = 25 full time plus 50 "feet on the street" contractors)
- Set-up Silicon Design and Software development groups in India (Total team size = 80 Engineers and growing. Today over 4,000)
- Complete ownership for P/L for India and surrounding regions
- Grow at 2X that of the PC market in India and ramp the total topline from zero to \$100M in a 2 year period.
- Market share in India grew from 4% to 22% in Q206 with a healthy ASP and Gross margin >40%

- Transformed the profile of customers from all distribution/ whitebox to doing business with all major OEMs in the country (local and Multinationals)
- Made an entry into most of the top 50 prestigious customers of India including the Central Government as well as many State governments.
- Collaborated with the Central Government – Ministry of IT, to architect the semiconductor manufacturing policy for India

October 2002 to Nov 2004:
Corporate Vice President, Business Process Transformation Group

Emerging Markets Initiative
AMD, Inc., Sunnyvale CA

Responsibilities:

- Chief Information Officer, Chief Procurement Officer, leading the Corporate IT, Corporate Supply Chain Management, Corporate Logistics and Custodian for AMD India.
- Transforming the company into a "Process based" corporation by integrating these stand alone functions into the Business Units
- Setting up the processes to then lend themselves to a "co-sourcing" type of business model with appropriate "complementors/partners" and reducing the overall cost burden for these services. Also, more importantly, "variabilize" the cost structure so that the company can focus its efforts and dollars on its core competencies.
- Total cost reduction achieved = \$200M per year
- **Big Bang implementation of SAP SD across AMD** – kick-off to go-live in 7 months. Successfully brought up all sites with only one week down time. Project completed on time and within budget. Managed a team of over 200 cross-functional professionals for this implementation.
- Put together a strategy for all "emerging markets" with the objective of growing twice as fast as the market was growing in these regions.
- Emphasis on India and China from both, Sales point of view and how to utilize the abundant and relatively cheaper talent in these two countries.

December 1999 to October 2002:
Vice President of Operations, Computation Products Group
Manufacturing Services Division, AMD Inc.
Sunnyvale, CA

Responsibilities:

- Managing the Microprocessor C4 Assembly and Test Operations located in Penang and Singapore respectively (40 Million units per year) – 2,500 employees, **Total Annual Budget = \$1Billion**
- Manage all Microprocessor related Assembly and Test Engineering and Logistics activities – total US employees = **160**.
- Manage the subcontractor operations and Engineering group which oversaw all back-end subcontracted activities for AMD. 4 Major subcontractors; total annual run rate = 90Million units; **\$67M** . For 2 years, this also included managing the Athlon "board build" program at SCI in Huntsville, Alabama.
- Manage Physical distribution and Transportation for AMD worldwide. This included 4 distribution centers offshore, one in Santa Clara and one in Amsterdam. Annual Budget for distribution and transportation = **\$25M**
- Ensure proper day to day die loading of the factories to maximize labor efficiency.
- Plan ALL **Direct and Indirect material** required by the factories to build Microprocessors and ensure no stock-outs. Total annual budget of **\$500M**.
- Strategic 3 year demand/supply planning for ALL factories (Assembly and Test) that directly impacts Capital purchases, Space and head count.

- Model and Predict with high accuracy, the output of each factory on a weekly basis to feed the demand engine.
- Act as an official liaison between various product groups and the factories.
- Manage Dice, packaged and finished goods inventory at each factory. Including the SMI programs with Key customers.
- Manage a local Engineering TEST operation with a 2 shift crew supporting the launch of new products into production mode.
- Manage a group called "running start" which helped demonstrate the performance of AMD products on customer's boards with real applications.

July 1997 to Dec 1999
Director of Logistics, Manufacturing Services Group, AMD
Sunnyvale, CA

September 1996 to July 1997:
Director of Operations, AMD Thailand Ltd, Bangkok Thailand (Expatriate)

- Responsibilities Included:
- Manage 6 Million/week semiconductor Assembly and Test/Finish operation for FLASH and Programmable Logic products. Packages manufactured included Plastic Dips, PLCCs, TSOPs and SOICs.
 - Prepare the 5 year strategic plan for the Thailand operations including the new product roadmap, productivity indices, standard unit cost (ABC methodology) projections, MSO and Variance analysis.
 - Managed an overall workforce of 1000 exempt, non-exempt and direct labor staff.
 - Managed ALL Engineering functions in this factory such as, Product Engineering, Test Engineering, Process Engineering and, Industrial Engr.
 - Trained 3 local department level managers to take over the Operations and promoted them to Directors of their respective operations – Assembly, Non-Volatile memories (FLASH) and, Programmable logic

April 1984 to September 1996:
Several Engineering positions from Individual contributor to Supervising Engineer to Engineering Manager @ AMD, Inc, Sunnyvale CA

Education:

Master of Science in Industrial Engineering, Texas Tech Univ, Lubbock, TX. Graduated Dec, 1983.
 GPA = 3.9; Alpha Pi Mu honor student

Inducted into the Industrial Engineering Academy of Engineers in 2005 by the Texas Tech Dept of IE

Honored by the Texas Tech School of Engineering as one of their **Distinguished Engineers** – a prestigious honor given to only 200 students to-date over past 100 years.

Statistical Process Control and LEAN Blackbelt certification in 1992

BS, Production Engineering, Univ of Bombay, India. First class with Distinction.
 Graduated: 1982.

Other Significant Honor:

Honored as one of the top 25 IT Executives in India – twice in a row 2005/2006 when I was posted there as President of AMD India.

References: Available upon request.

Raj Talluri, Ph.D

Senior Vice President, General Manager, Mobile Business Unit, Micron Technology, Inc.

Résumé

[Quick Links](#)

[Experience](#)

[Texas Instruments](#)

[Qualcomm](#)

[ISRO Satellite Center](#)

[Education](#)

[University of Texas at Austin](#)

[Publications](#)

[Patents](#)

[Personal](#)

SUMMARY

28+ years of executive corporate management experience spanning various disciplines including product management, business management, product marketing, press, investor communications and engineering management.

Innovative and creative business leader. Chosen as **No. 5, Most Creative Person in the business** in 2014 by Fast Company Magazine <http://www.fastcompany.com/3029177/most-creative-people-2014/raj-talluri> for work in IoT.

Currently leading a > \$6B/year mobile memory and storage business at Micron Technology.

Incubated, built and led \$1B/year IoT business unit at Qualcomm.

Led the multi \$B Qualcomm Snapdragon Application Processor business and increased market share from low double digits to over 50% in 4 years making it the number 1 shipping Apps Processor in the market.

Championed, executed and managed the \$2.4B acquisition of CSR Inc. - a leading supplier of Bluetooth Technologies into Qualcomm.

Deep expertise and experience in Application Processors. Responsible for two of the most successful applications processors in history of mobile - OMAP and Snapdragon.

Proven track record of successfully managing large, worldwide business and development teams. Highly customer focused with strong business relationships with the leadership teams of top Smartphone manufacturers, consumer electronics leaders and apps processor ecosystem partners.

Strong technical background with a Ph.D in Electrical Engineering from the University of Texas at Austin. M.Engg from Anna University, Chennai, India and B. Engg from Andhra University, Waltair, India. 13 granted US patents and over 35 technical publications.

Experience

Senior Vice President, General Manager, MBU, Micron Technology, San Jose, CA **March '18 – Present**

- Responsible for the P&L of a portfolio of a > \$6B/year Mobile DRAM and NAND business. Grew the business significantly in last two years. Diversified the portfolio of both DRAM and NAND products. Expanded the customer base and stabilized the overall P&L.

[Top](#)

<http://www.qualcomm.com/>

**Senior Vice President, General Manger
IoT Business Unit
Qualcomm CDMA Technologies
Qualcomm, San Diego, CA**

June '15 – Mar '18

- Responsible for all aspects of Qualcomm's Internet Of Things (IoT) business. Incubated the business and grew it to a \$1B/year highly profitable biz with a diversified set of over 500 customers. Product portfolio included 3G/4G modems, Bluetooth, Wifi, Zigbee, and Snapdragon Application Processors.

[Top](#)

<http://www.qualcomm.com/>

**Senior Vice President, Product Management,
Applications Processors, Qualcomm CDMA
Technologies,
Qualcomm, San Diego, CA**

April '12 – June '15

- Responsible for all aspects of Qualcomm's Snapdragon Application Processor technologies and AP product roadmaps for Smartphones, Tablets, Automotive, home DMA boxes and other emerging AP businesses. Reporting to the President of the chipset division.

[Top](#)

<http://www.qualcomm.com/>

**Vice President, Product Management, Applications
Processors, Qualcomm CDMA Technologies,
Qualcomm, San Diego, CA**

Feb '09 – April '12

- Responsible for Qualcomm's Application Processor technologies including CPU, GPU, DSP, video, imaging, audio, GPS, sensors and other connectivity technologies

[Top](#)

<http://www.ti.com/>

**General Manager, OMAP, Wireless Terminals
Business Unit
Texas Instruments, Dallas, Texas**

2007 – Jan 2009

- Responsible for profit and loss of a World Wide, \$750+M/year, highly profitable, semiconductor business with 800+ people across US, India, Europe, Japan and Asia;
- Responsible for a portfolio of businesses that deliver silicon and software solutions that include OMAP Application Processors and OMAP-DM camera media coprocessors in mobile phones

[Top](#)

<http://www.ti.com/>

... In 7 years, I built and led a team that created a \$250M, profitable, business for TI from scratch and am now responsible for TI's DSP strategy in Digital Consumer...

**General Manager, Imaging and Audio Business,
Texas Instruments, Dallas, Texas**

2002 – March 2007

- Responsible for profit and loss of a World Wide, >\$250M/year, profitable, semiconductor business with 200+ people across US, India, Japan and Asia
- Responsible for a portfolio of businesses that deliver silicon and software solutions for Digital Still Cameras, Portable Audio and Camera Phones
- Manage all aspects of the business including business strategy, roadmap development, chip design, product engineering, systems engineering, software development, marketing, finance, and customer quality
- Managed the definition, architecture, design and development and high volume production of 15+ complex, high performance, very low power, SoCs with high levels of analog and digital integration
- Managed WW design teams in developing these chips in deep sub micron technologies and state of the art design flows with both analog and digital technologies

<p>top</p> <p>http://focus.ti.com/docs/bsp/catalop-overview/overview.html?templateId=1010&path=/templateData/cm/level1.dat#/virimg_digstillcam_ovv</p> <p>...Texas Instruments now has the largest market share of all the merchant vendors of digital still camera solutions...</p>	<p>Business Unit Manager, Digital Still Camera Business</p> <p>Texas Instruments, Dallas, Texas</p> <ul style="list-style-type: none"> • Responsible for profit and loss of the World Wide, Digital Still Camera business unit • Championed and developed the business strategy, DSC engine roadmap, third party value web and a strong customer base that resulted in TI's DSC solutions being used by 7 of the top 10 camera manufacturers. Led TI to over 20+% market share in this space • Chief Architect of DSC21, a highly successful single chip solution for DSCs • Developed new business opportunities for TI in emerging markets that include A/V juke boxes, tape less camcorders, camera phones, photo printers, multi-format DVD players using the digital still camera chipsets and their variants 	<p>1999 – 2002</p>
<p>top</p> <p>http://www.ti.com/</p> <p>... I started at Texas Instruments as a Member Technical Staff. Within a short period I was promoted to manage the team. I built a leading edge video technology team...</p>	<p>Manager, Video Technology, DSP R&D Center</p> <p>Texas Instruments, Dallas, Texas</p> <ul style="list-style-type: none"> • Lead and manage research and development into various aspects of image and video technology and multi-media DSP architectures • Lead the team that developed the coprocessor architectures for image processing and video compression in digital still cameras • Chief Technologist of the Digital Still camera business responsible for chip architectures, silicon design, software and technical strategy • Elected <i>Distinguished Member Technical Staff</i>. This is very distinguished recognition at TI and only 1% of the world wide technical population at TI is in this cadre. 	<p>1995 - 1999</p>
<p>top</p> <p>http://www.ti.com/</p> <p>... two US patents resulted from this work at TI...</p>	<p>Member Technical Staff, DSP R&D Center</p> <p>Texas Instruments, Dallas, Texas</p> <ul style="list-style-type: none"> • Developed video compression techniques and for wireless and Internet applications. This technology is now part of the ISO MPEG4 and JPEG2000 standards. • Represented Texas Instruments at ISO MPEG-4 and ITU H.324 standards; chaired adhoc groups and made several technical contributions to the standards 	<p>1993 – 1995</p>
<p>top</p> <p>http://www.ti.com/</p>	<p>Summer Intern, Computer Science Division,</p> <p>Texas Instruments, Dallas, Texas</p> <p>Developed target tracking and range estimation techniques using image processing</p>	<p>Summer 1991</p>
<p>top</p> <p>http://www.isro.org/centers/cn_sac.htm</p>	<p>Scientist, ISRO Satellite Research Center,</p> <p>Bangalore, India</p> <p>Developed image processing hardware and software for a Star Sensor used in the Indian Remote Sensing Satellite.</p>	<p>1986 - 1987</p>
<p>top</p> <p>http://www.utexas.edu/</p>	<p>Education</p> <p>Ph.D. in Electrical Engineering</p> <p>University of Texas at Austin, Austin, Texas</p>	<p>1988 – 1993</p>

<http://www.eco.utexas.edu/projects/cvrc/>

... I did research Image Processing, Computer Vision and Robotics at one of the premier Computer Vision research labs in the world ...

[top](#)

<http://www.annauniv.edu/>

Ph. D. Dissertation: "Position Estimation Techniques for Autonomous Mobile Robots"
Advisor: Dr. J. K. Aggrawal

M. Engg 1984 – 1986
Anna University, Madras, India

[top](#)

<http://www.indiapress.com/au/ocw/>

B. Engg 1980 – 1984
Andhra University, Waltair, India

[top](#)

Publications

<http://www.iecc.org/>

... these publications are a direct result of my work at Texas Instruments and my research work in academia..

- Published over 35 journal articles, conference papers, and book chapters in many of the leading electrical engineering publications.
- Chaired sessions at many of the industry leading conferences and also ISO MPEG standard bodies
- Gave numerous invited talks and lectures at industry forums on compression, image processing and multi-media silicon solutions

[top](#)

<http://www.uspto.gov/>

... these patents are a direct result of my work at Texas Instruments ...

Patents

- 13 granted US patents and a few more under review on image processing, video compression, and media processor architectures
- Techniques patented on video compression are now adopted into the popular ISO MPEG4 standard

[top](#)

Personal

- Citizen of United States of America
- Married with two children
- Languages: English, Hindi and Telugu.
- Hobbies: Photography, Reading, Tennis, Badminton, Billiards, Traveling



