

# SILVACO

Innovative Semiconductor Design and  
Manufacturing Through AI, Digital Twin  
Modeling, Simulation Software and Automation

From Atoms to Systems

Investor Presentation November 2024

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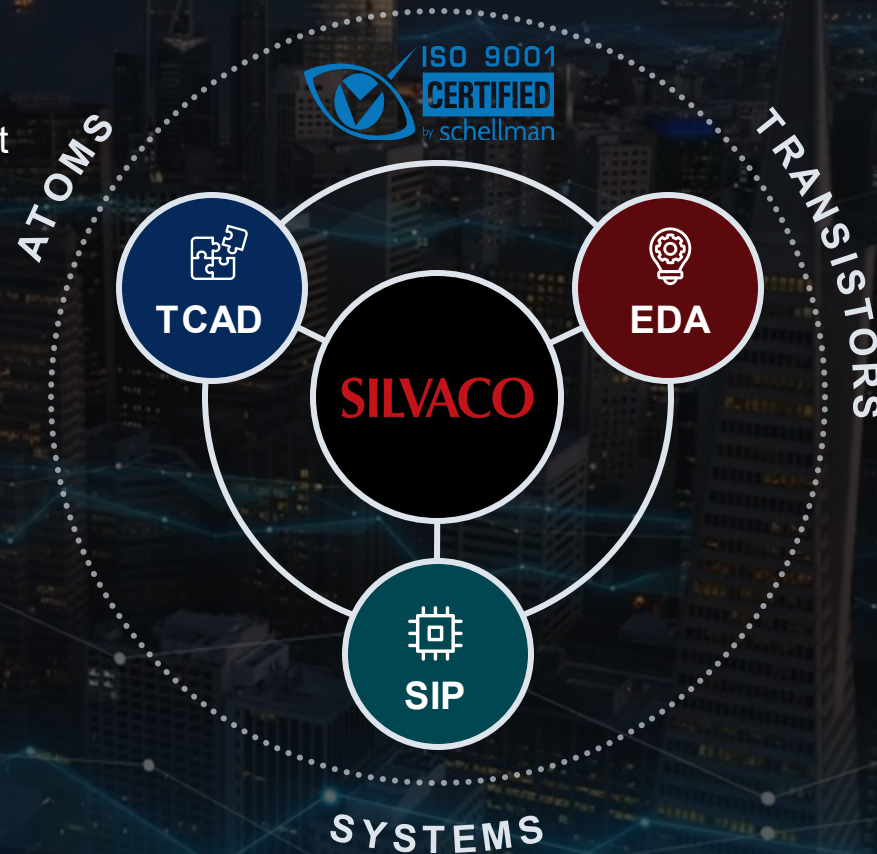
In addition to the financials presented in accordance with U.S. generally accepted accounting principles ("GAAP"), this presentation includes non-GAAP gross profit, non-GAAP gross profit margin, non-GAAP operating income (loss), and non-GAAP operating income (loss) margin. Non-GAAP metrics have limitations as analytical tools and you should not consider them in isolation or as a substitute for or superior to the most directly comparable financial measures prepared in accordance with U.S. GAAP. There are a number of limitations related to the use of non-GAAP metrics versus their nearest GAAP equivalents. Other companies, including companies in our industry, may calculate non-GAAP metrics differently or may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP metrics as tools for comparison. We urge you to review the reconciliation of Silvaco's non-GAAP metrics to the most directly comparable GAAP financial measures, and not to rely on any single financial measure to evaluate our business. See the Appendix for reconciliation between each non-GAAP metric and the most comparable GAAP measure.

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# Silvaco At-A-Glance

Simulation software platforms and digital twin modeling in semiconductor design & manufacturing

- Silvaco is a provider of TCAD, EDA simulation software, and SIP solutions that enable chip design, digital twin modeling and simulation utilizing AI and Machine Learning
- Decades of deep expertise in modeling, and simulation software from concept to design and manufacturing
- Silvaco's digital twin platform drives advances for next gen of power semis (SiC, GaN), displays, memory devices, and advanced CMOS technologies



**800+**<sup>(1)</sup>  
Customers

**#2**<sup>(2)</sup>  
Global TCAD revenue

**1984**  
Founded in 1984  
270+Employees<sup>(1)</sup>

**2019**  
Relaunched with  
new management team

**Silicon Valley, USA**

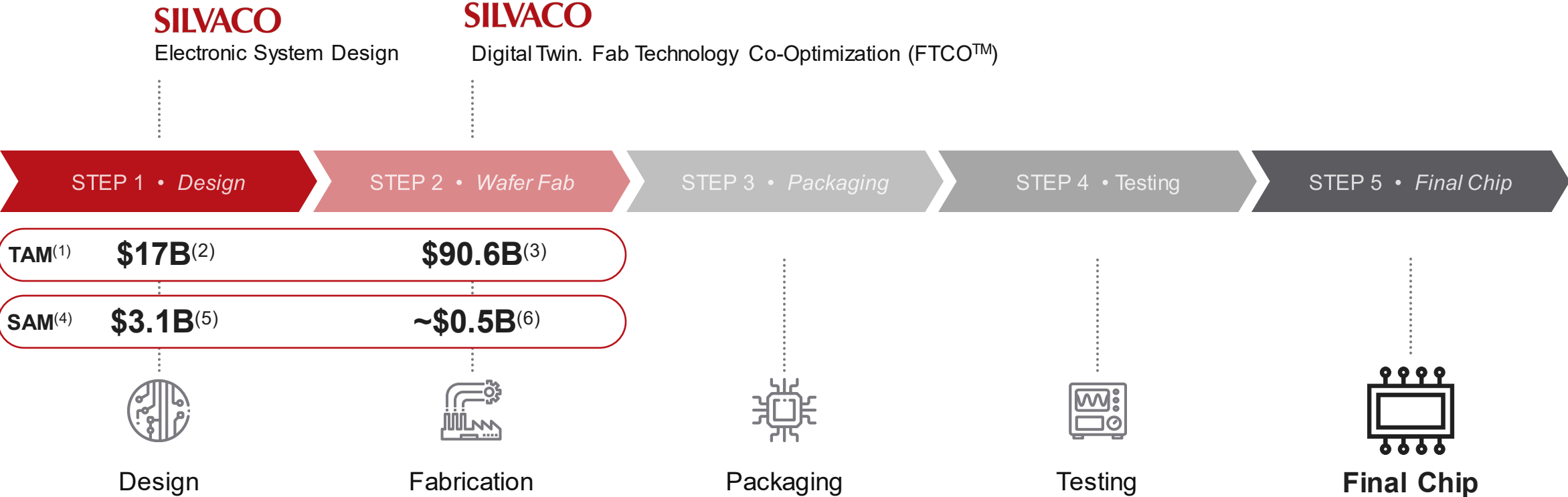
Global presence with HQ and R&D  
in Silicon Valley, USA

1) Data as of September 30, 2024

2) 2023 Annual Electronic Design Market Data, Electronic System Design Alliance

# Electronic Design and Manufacturing Software Enables Value Chain

Silvaco is expanding market SAM using AI-based digital twin modeling & simulation












1) Total Addressable Market ("TAM") 2) 2023 ESDA total reported EDA and SIP revenue 3) 2023 revenue based on SEMI press release: <https://www.semi.org/en/news-media-press-releases/semi-press-releases/global-total-semiconductor-equipment-sales-forecast-to-reach-record-%24124-billion-in-2025-semi-reports> 4) Serviceable Addressable Market ("SAM") 5) Based on ESDA's breakdown of the EDA software market, which includes SIP, Silvaco estimates its solutions compete in portions of the EDA software market representing \$3.1 billion of the global aggregate EDA software market. 6) Silvaco estimate of SAM for its FTCO solution

# Large and Growing Market Opportunity Serving Numerous Applications













Solving complex design challenges across end markets



**Silvaco's Core Focus Markets**

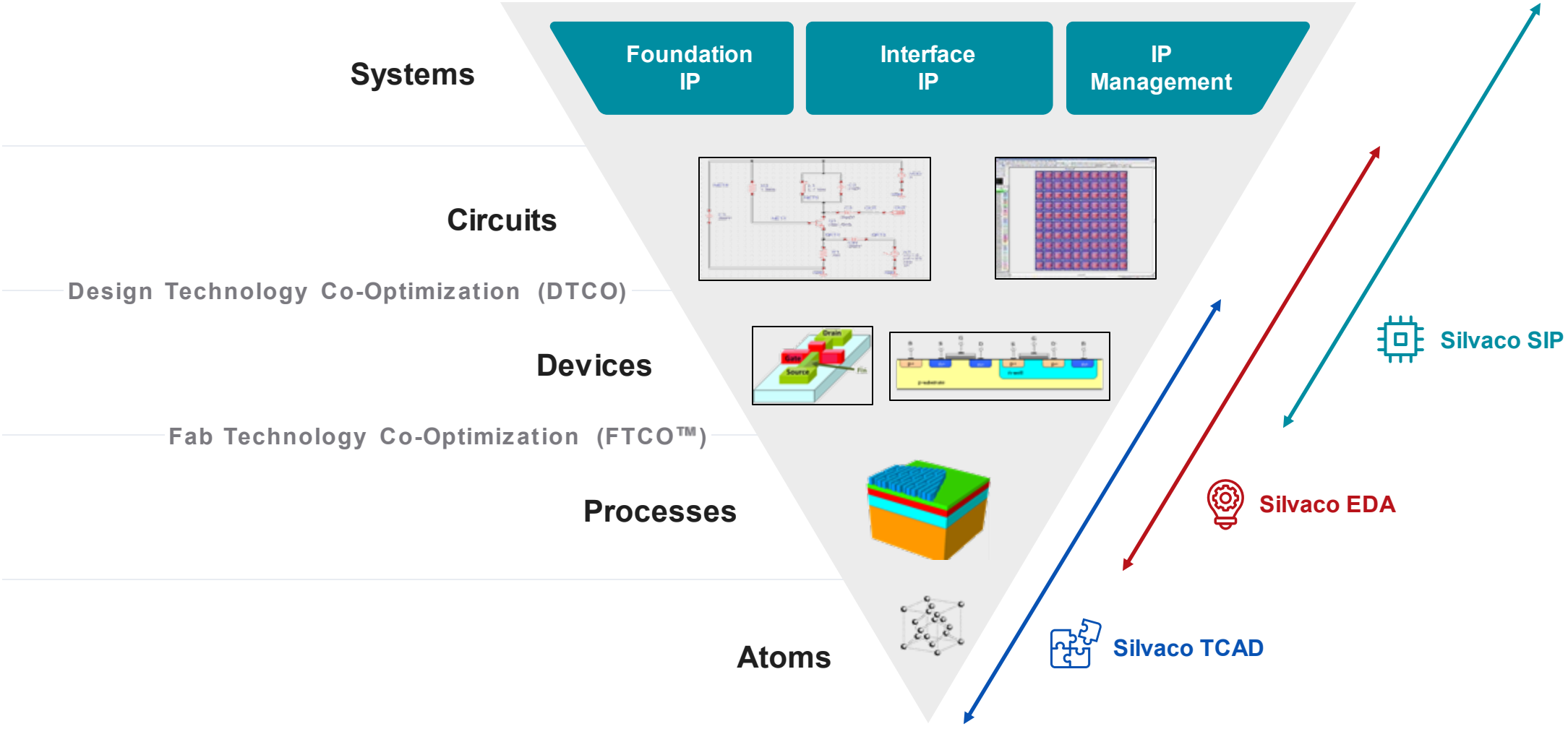
<b>Power</b>	 EV & HEV Automobiles	 Datacenters	 Industrial
<b>Display</b>	 Flatscreen TVs	 Wearables	 Automotive Display
<b>Memory</b>	 DRAM Products	 Flash Memory Products	 Artificial Intelligence

**Silvaco's Other Key Markets**

<b>Automotive</b>	 Vehicle Electrification	 Vehicle Connectivity	 ADAS
<b>IoT Device</b>	 Industrial Robotics	 Smart Homes	 Predictive Maintenance
<b>HPC</b>	 Genomic Sequencing	 Artificial Intelligence	 Quantum & Photonics Computing
<b>5G / 6G</b>	 4G to 5G/6G Transition	 High-bandwidth, Low-latency	 Lower Process Technology Nodes

1) Based on ESDA's breakdown of the EDA software market, which includes SIP, Silvaco estimates its solutions compete in portions of the EDA software market representing \$3.1 billion of the global aggregate EDA software market.

# From Atoms to Systems – Silvaco Solutions

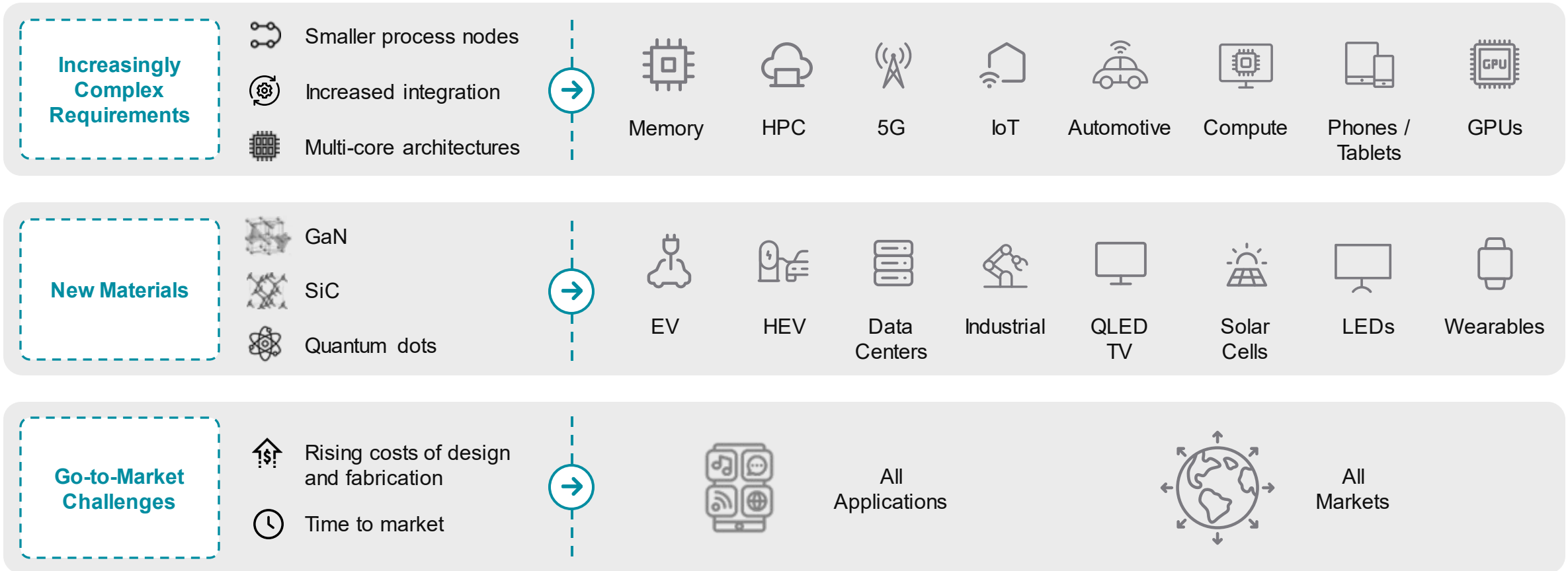


# A New Era of Semiconductor Design Challenges

Complexity, New Materials, Go-to-Market

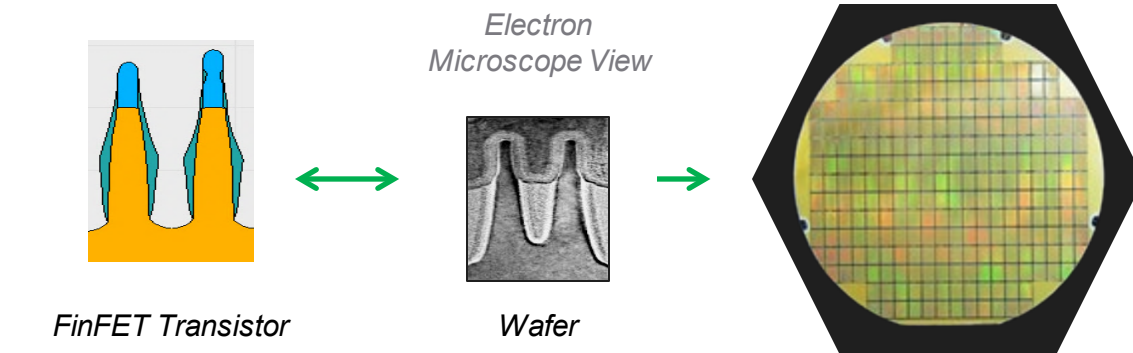
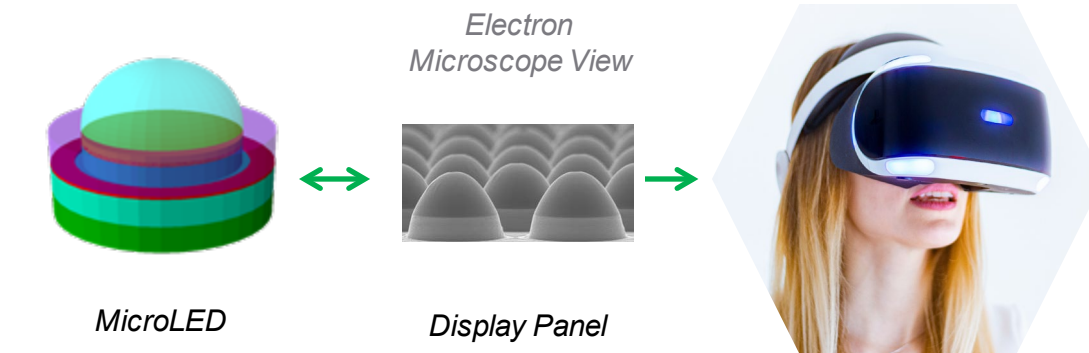
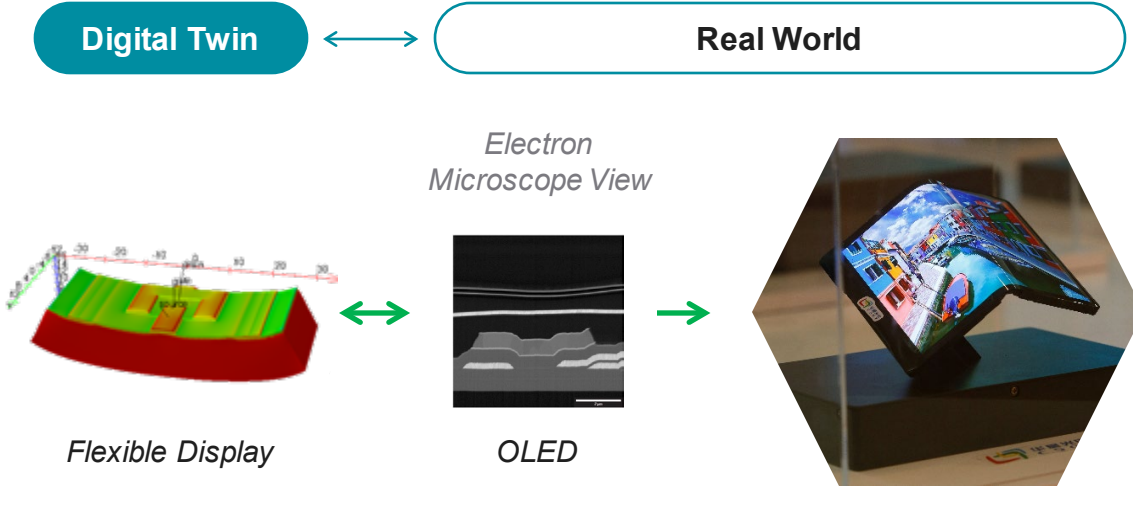
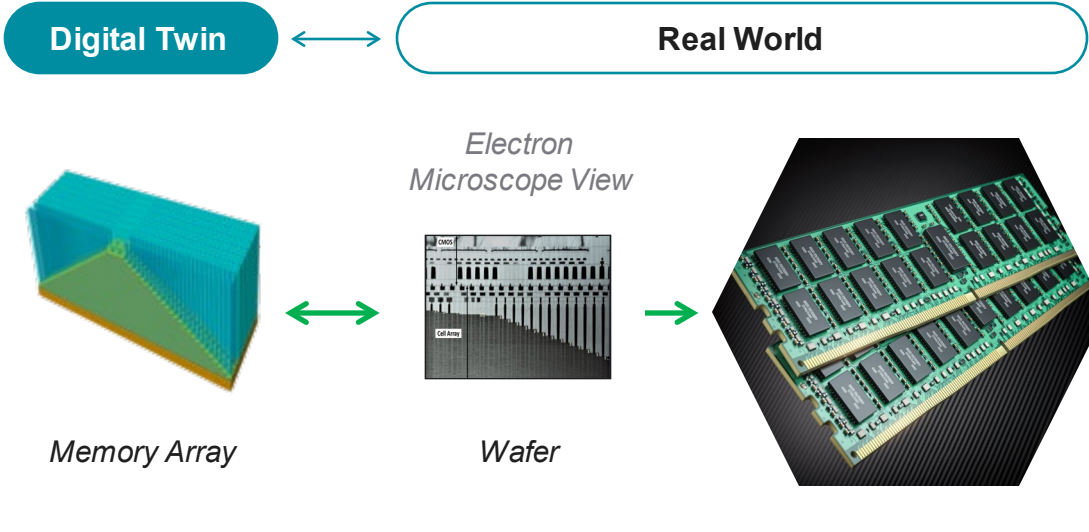
## Numerous Design Challenges....

## ...Facing Diverse End Markets / Applications



# Digital Twin Model(s)

A simulatable physics based digital counterpart that mirrors the form, fit and function of the physical world





# Four Uses of AI in EDA Industry

Silvaco is leveraging AI to close the gap between design and fabrication to improve yield

## Design Self-Optimizing Tools<sup>(1)</sup>

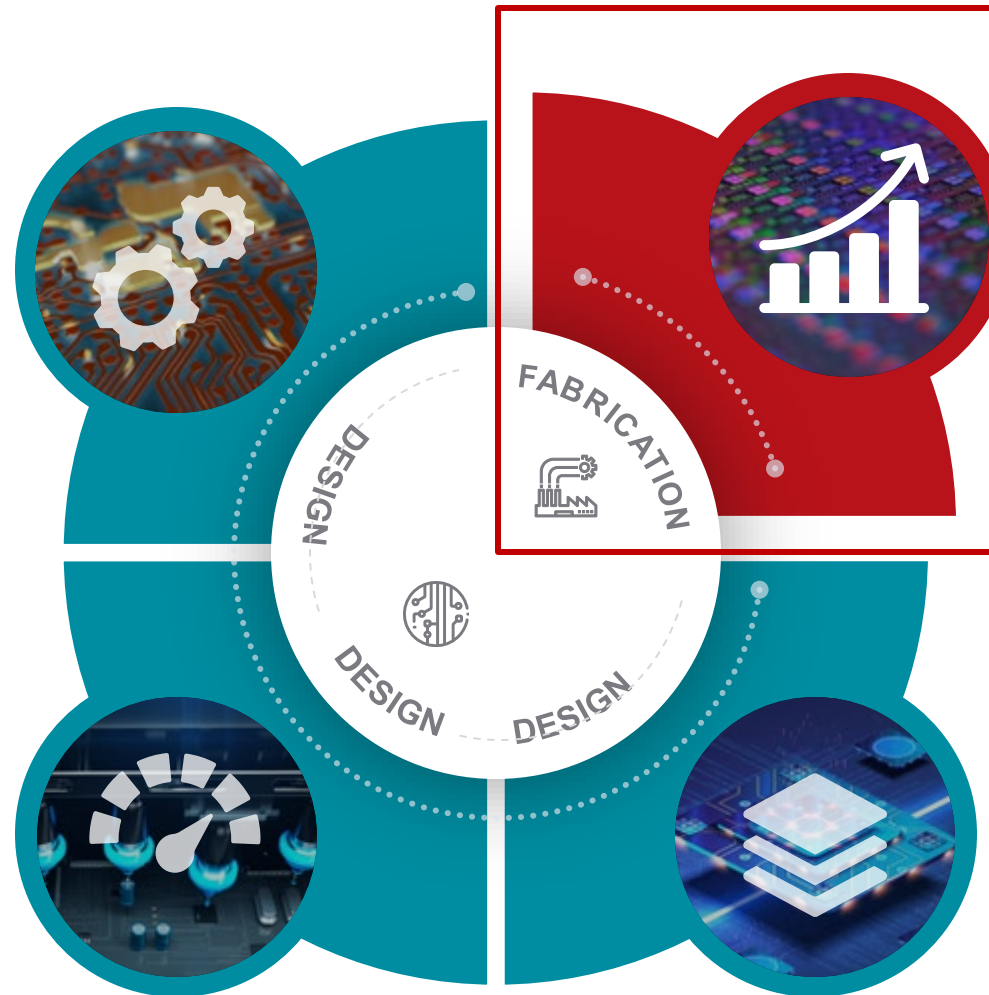
### Improve Performance of Existing Design Tools

- Training for specific capability
- Reinforcement learning
- Efficiency improvement
- Optimum results in less time

## Design Assistant<sup>(1)</sup>

### Build Foundation Models From Design Experience

- Machine learning foundation models
- Learns about design and style
- Design strategy recommendations
- Understanding of intent



## Fab Assistant<sup>(2)</sup>

### Build Digital Twin of Fab Process

- Use manufacturing data to develop Digital Twin of Fab
- Builds a Real-Time model of Fab Process
- Fab engineers run experiments on desktop
- Identifies issues that impact yield, faster and earlier

## Generative Design<sup>(1)</sup>

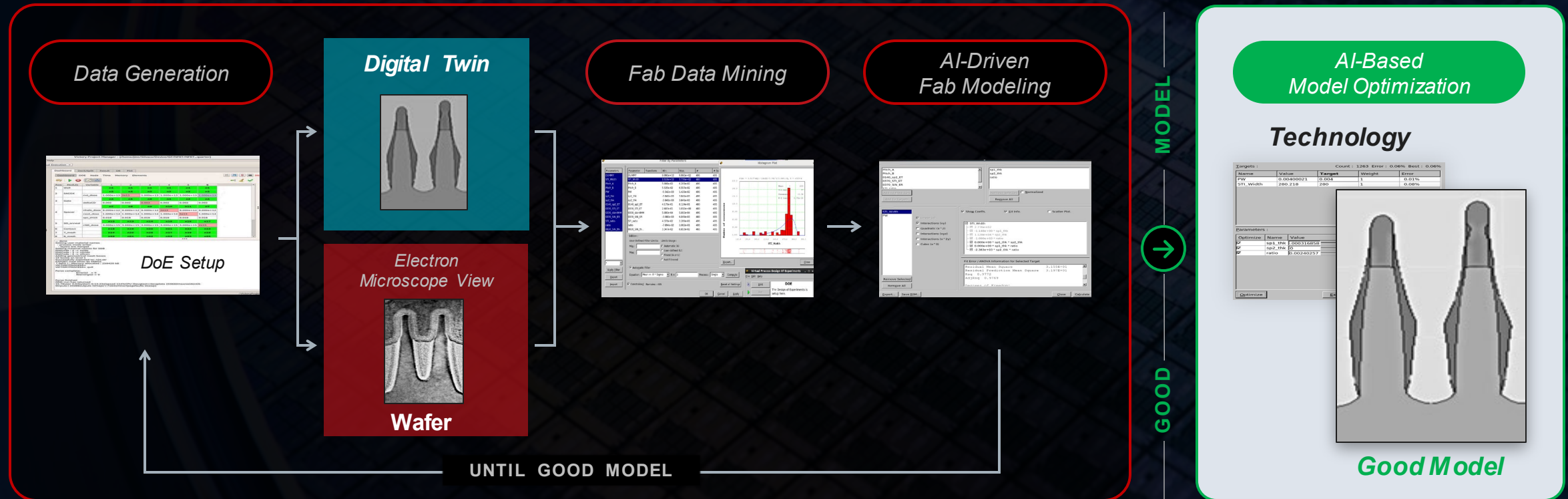
### Expand Assistant Capabilities

- Deep learning on mega data
- Generate new data
- Self-supervised learning
- Design generated from requirements

1) Source: DAC 2023 Keynote, Wally Rhines, President & CEO Cornami, Inc. & independent director of Silvaco 2) Source: Silvaco

# Silvaco's AI-Driven Fab Technology Co-Optimization (FTCO™)

Removing cost of trial-and-error by utilizing AI-generated digital twin models

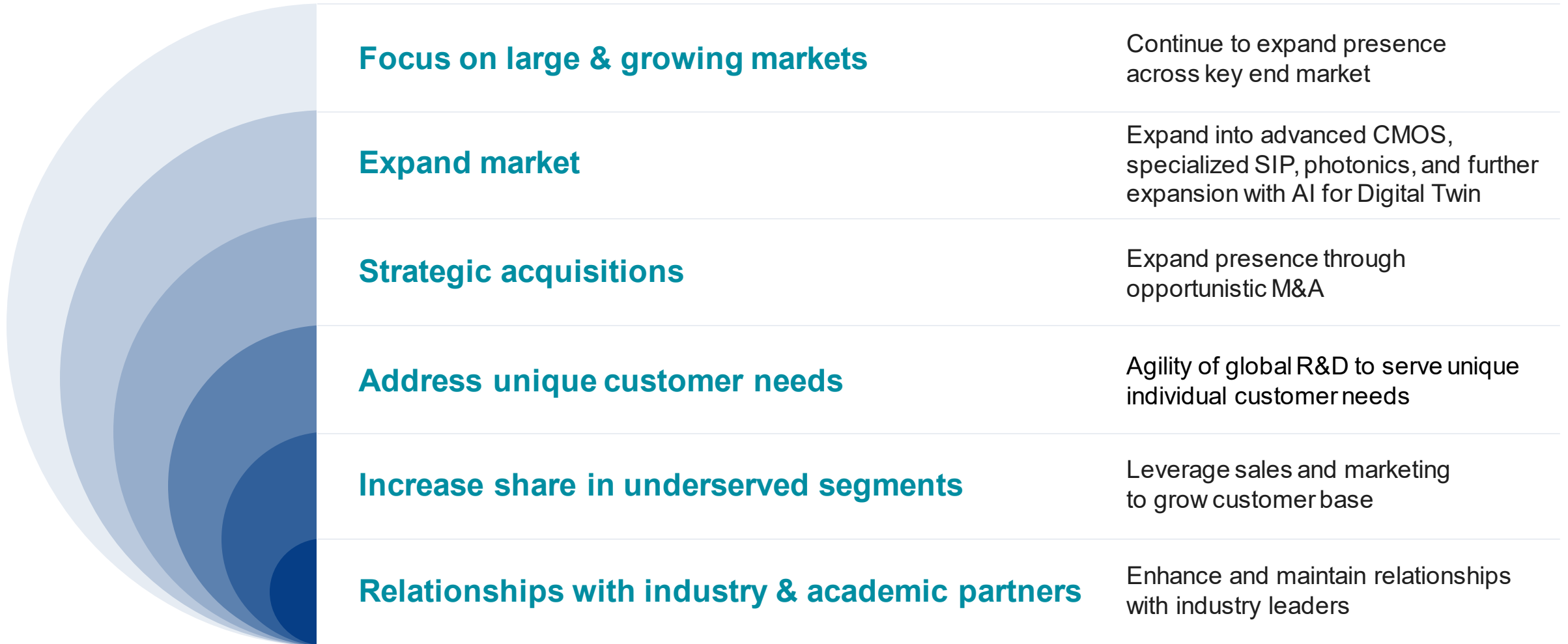


→ Artificial intelligence-based solution for wafer-level fabrication facilities: Memory, CMOS, SiC, GaN, etc.

→ Uses manufacturing data to perform statistical and physics-based machine learning software simulations to create a computer model or 'digital twin'

# Growth Strategy Summary

Growing TAM in semiconductor and photonics



# Why Customers Choose Silvaco

Electronic system design software is a crucial part of the semiconductor value chain



## Differentiated Platforms

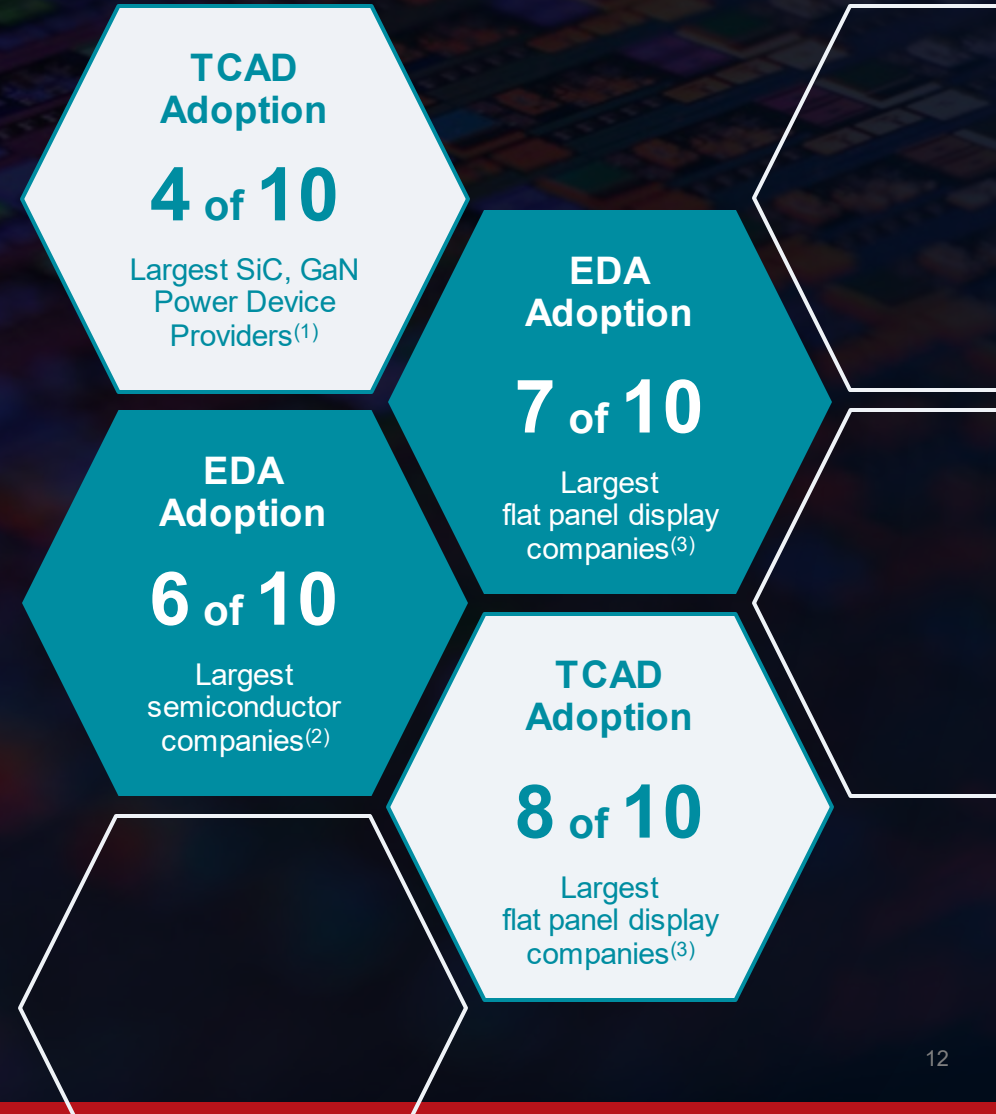
- Power
- Display
- Memory



## Deeply Embedded in Our Customers' R&D

- Advanced technology understanding
- Agility to respond to customer' needs (Agile R&D)

- 1) 2023 Future Market Insight SiC and GaN Semiconductor Market Report  
2) Largest in terms of revenue according to companiesmarketcap.com  
3) Largest in terms of revenue from Q3'2023 to Q2'2024 according to Display Supply Chain Consultants (DSCC)



# Highly Recurring Model with Multiple Growth Vectors

Electronic system design software is a crucial part of the semiconductor value chain



### Global Presence

A comprehensive and expanding international strategy that effectively meets diverse customer needs.



### FTCO™ Digital-Twin Modeling

Promoting the adoption of our digital-twin modeling product for fab process optimization in memory and other emerging technologies.



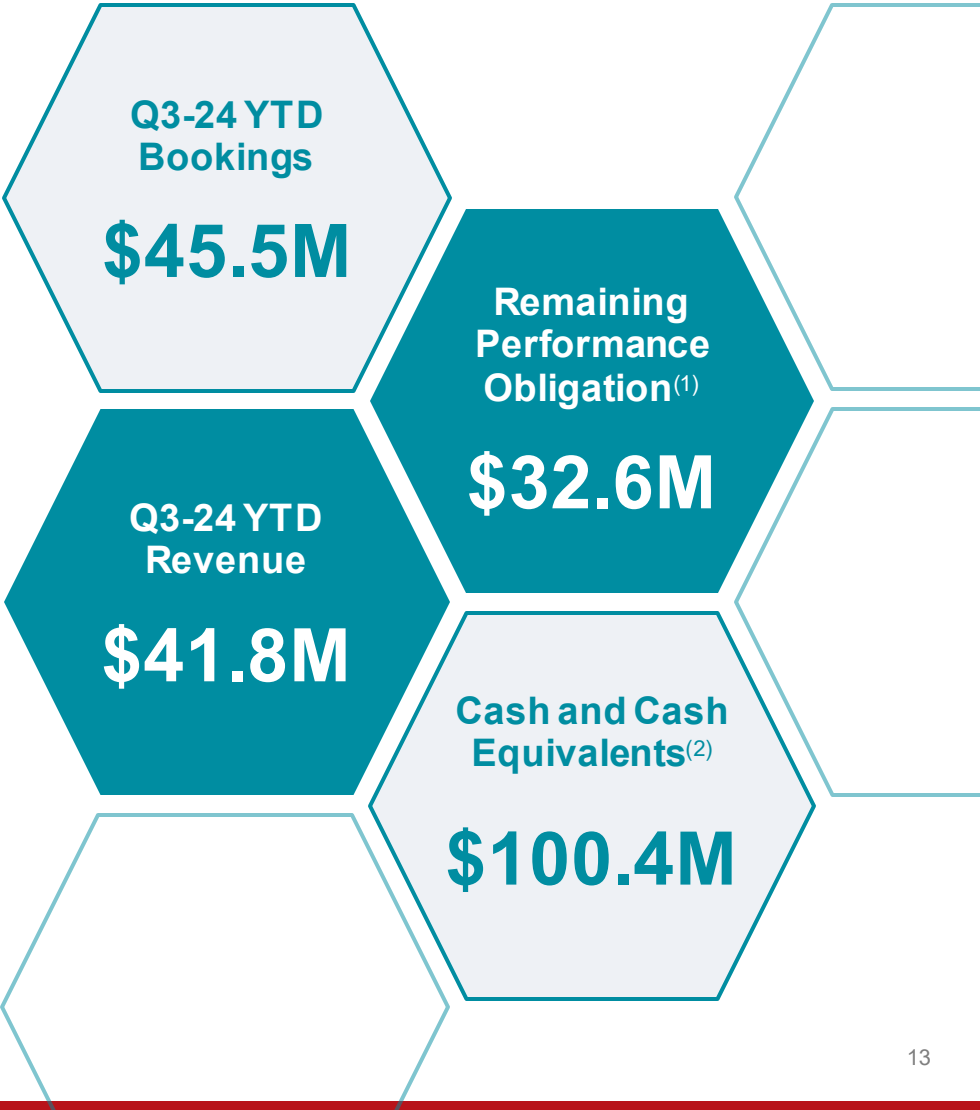
### Technology and Product Development

Our R&D is focused on advancing our technology and products in collaboration with strategic customers and partners to drive next-generation technology.



### Strategic Acquisitions

Our experienced team has the experience and resources to enable us to identify and execute upon actionable growth opportunities.



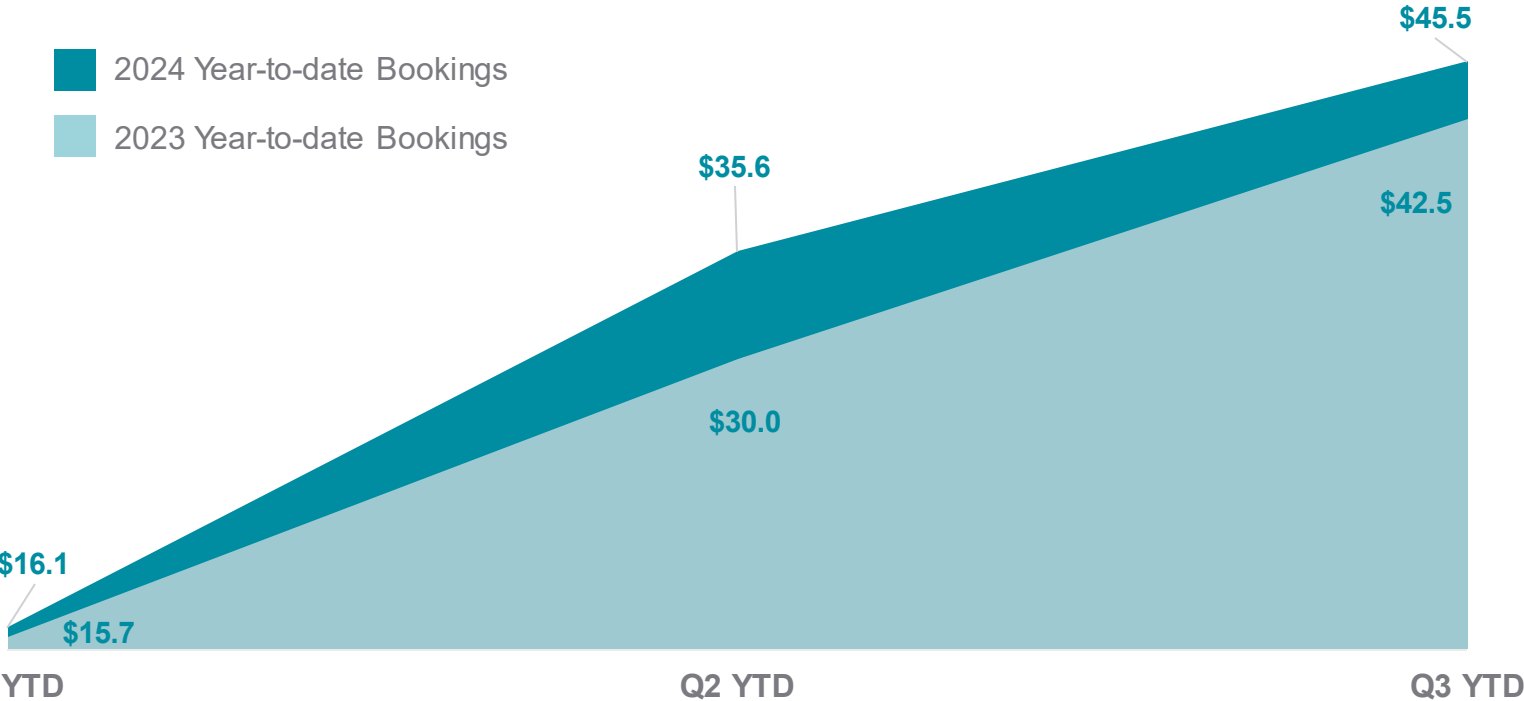
1) Remaining Performance Obligation represents contracted revenue that has not yet been recognized, which includes both deferred revenue and backlog, net of cancellations and adjustments, was \$32.6 million as of September 30, 2024.  
2) Cash, Cash Equivalents and short-term marketable securities were \$100.4 million as of September 30, 2024, not reflecting approximately \$5.3 million in cash was used in November 2024 to facilitate the net settlement of approximately 2.9 million restricted stock units which were fully vested and settled subsequent to the expiration of the IPO related lockup.

# Q3-24 Bookings Performance

(\$ in millions)

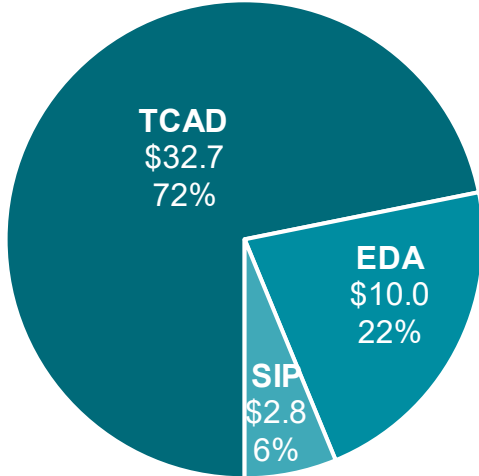
## Quarterly Bookings Trend

- **Q3-24 YTD Bookings** up 7% from previous year
- **Q3-24 YTD 33 New Customer Wins** including 14 in Q3-2024 alone.
- **Remaining Performance Obligation<sup>(1)</sup>** of \$32.6 million as of September 30, 2024.



## Q3-24 YTD Bookings by Product

- **TCAD:** Up \$5.7 million and 21% from previous year driven by FTCO™ digital-twin modeling product sale to memory customer.
- **EDA:** Down \$0.8 million and 8% from previous year due in part due to large display customer renewal in Q3-23.
- **SIP:** Down \$2.0 million and 41% from previous year. Key agreement renewed in Q2-24.



1) Remaining Performance Obligation represents contracted revenue that has not yet been recognized, which includes both deferred revenue and backlog, net of cancellations and adjustments.

# Q3-24 YTD Revenue Performance

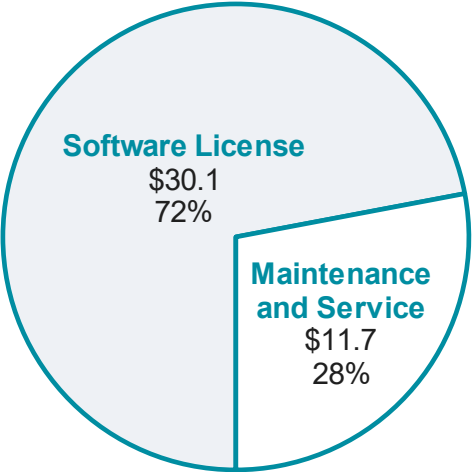
(\$ in millions)

## Revenue



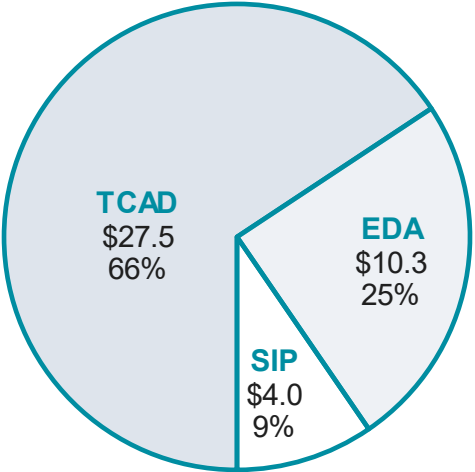
## YTD Sales by Category

- **Software License:** Term-Based licenses (SEPL) (averaging 3 years) and semiconductor IP products
- **Maintenance & Service:** Provides additional consistent recurring revenue



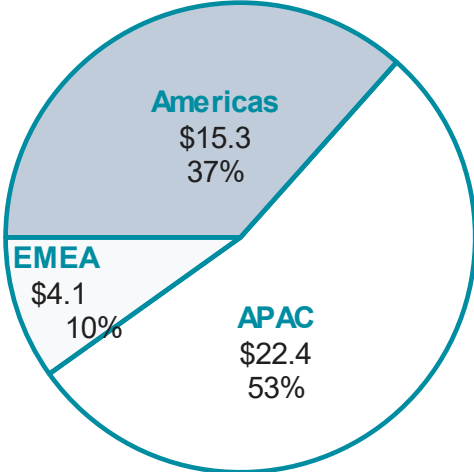
## YTD Sales by Product

- **TCAD:** Up \$3.0 million and 12% from previous year driven by FTCO digital-twin modeling product sale to memory customer
- **EDA:** Down \$0.9 million and 8% from previous year
- **SIP:** Down \$2.1 million and 34% from previous year. Key agreement renewed in Q2-24.



## YTD Sales by Country

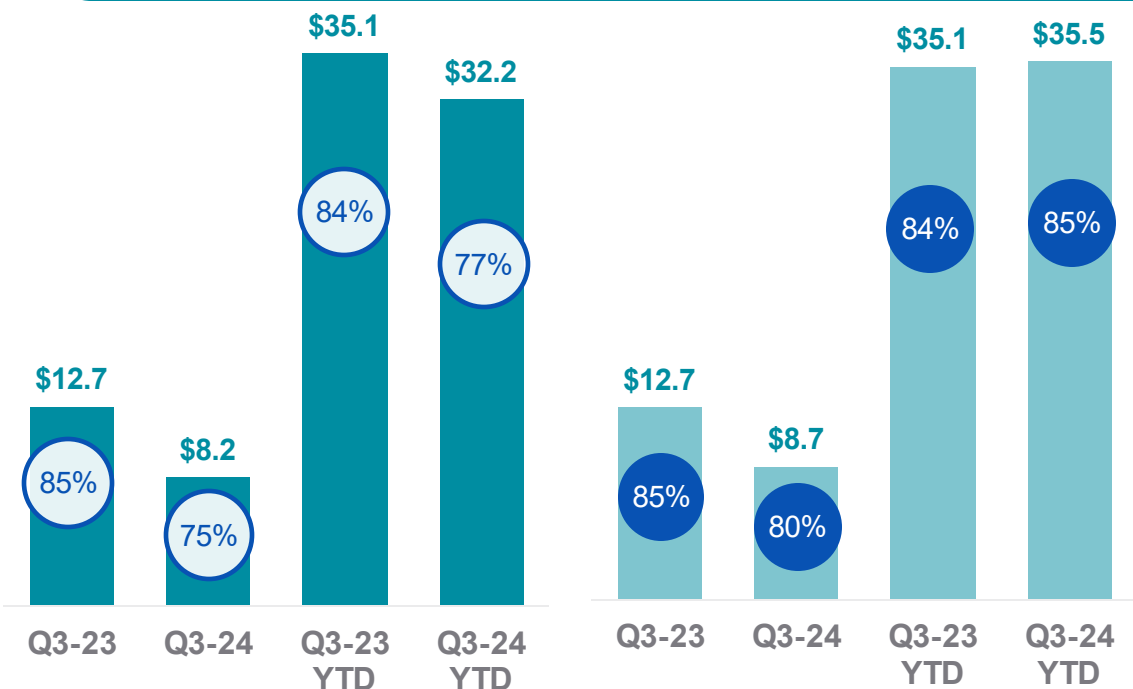
- **Americas:** Up \$2.0 million and 15% from previous year driven by higher TCAD sales.
- **APAC:** Down \$1.9 million and 8% from previous year on lower TCAD and IP sales.
- **EMEA:** Flat to previous year



# Q3-24 Financial Summary

(\$ in millions)

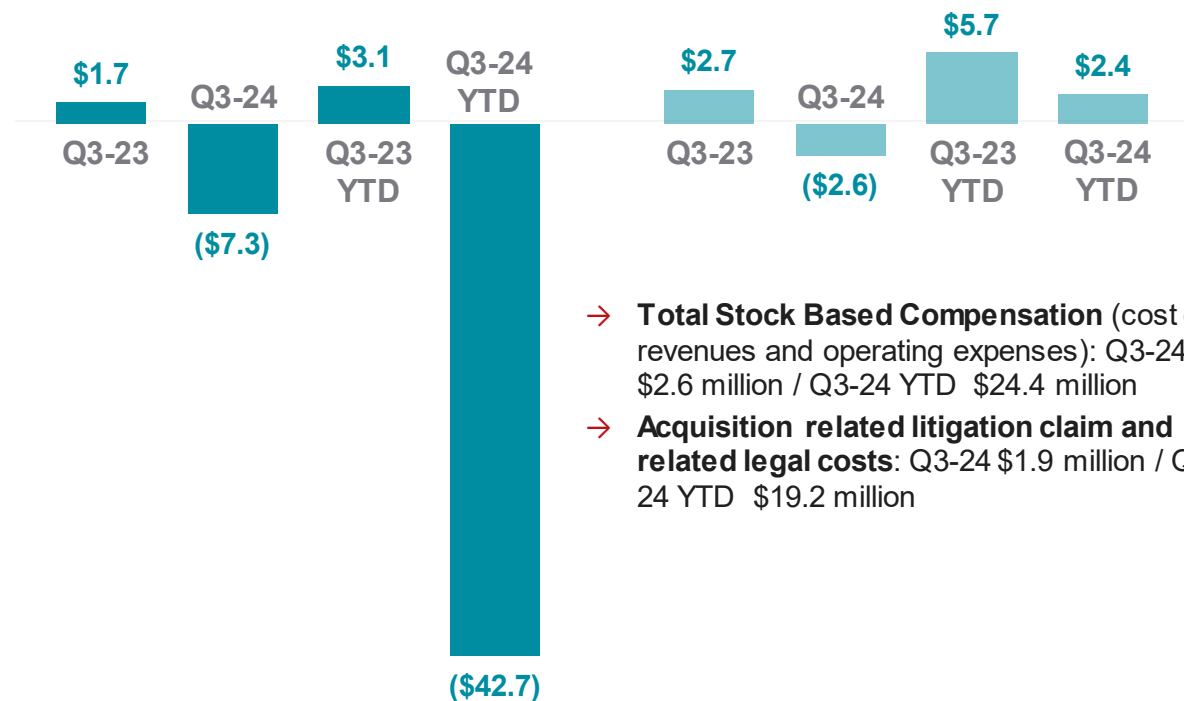
## Gross Profit and Gross Margin



■ GAAP Gross Profit      ■ Non-GAAP Gross Profit<sup>(1)</sup>  
 ○ GAAP Gross Margin      ● Non-GAAP Gross Margin<sup>(1)</sup>

→ **Stock-based compensation** for cost of revenue: Q3-24 \$0.3 million / Q3-24 YTD \$2.8 million

## Operating Income (Loss)



■ GAAP Operating Income (Loss)      ■ Non-GAAP Operating Income (Loss)<sup>(1)</sup>

→ **Total Stock Based Compensation** (cost of revenues and operating expenses): Q3-24 \$2.6 million / Q3-24 YTD \$24.4 million  
 → **Acquisition related litigation claim and related legal costs**: Q3-24 \$1.9 million / Q3-24 YTD \$19.2 million



# Other Silvaco Milestone Achievements

## Growth expansion, Compliance and Operational Excellence



Expanded FTCO platform adoption in May and October 2024



Announced strategic partnership with Purdue, Stanford, and Arizona State University to help overcome the talent shortage – June 2024



Appointed Candace Jackson as SVP, General Counsel, and Corporate Secretary – September 2024



Expanded Victory TCAD and Digital Twin Modeling Platform to Planar CMOS, FinFET and Advanced CMOS Technologies – Necessary step to enable FTCO for Advanced Process – September 2024



Silvaco is added to the Russell 2000®, Russell 3000® and the Russell Microcap® indexes in September 2024



Achieved ISO 9001 Certification of TCAD, EDA, and IP Products - October 2024

# Financial Guidance

## Fourth Quarter 2024

- **Gross bookings** in the range of \$18.5 million to \$21.5 million, which would represent a 19% to 38% increase from the fourth quarter of 2023.
- **Revenue** in the range of \$18.1 million to \$21.2 million, which would represent a 45% to 70% increase from the fourth quarter of 2023.
- **Non-GAAP gross margin** to be in the range of 85% to 87% increased from 79% in the fourth quarter of 2023.
- **Non-GAAP operating income** in the range of \$2.6 million to \$5.6 million, increased from the loss of \$1.6 million in the fourth quarter of 2023.

## Full Year 2024

- **Gross bookings** of \$64.0 million to \$67.0 million, which would represent an 10% to 15% increase from 2023.
- **Revenue** of \$60.0 million to \$63.0 million, which would represent a 10% to 16% increase from 2023.
- **Non-GAAP gross margin** to be in the range of 85% to 87% increased from 83% in 2023.
- **Non-GAAP operating income** of \$5.0 million to \$8.0 million, which would represent an 14% to 82% increase from 2023.

GAAP gross margin is the most comparable GAAP measure to non-GAAP gross margin, and GAAP operating income is the most comparable GAAP measure to non-GAAP operating income. Non-GAAP operating income excludes items such as certain transaction-related costs, IPO preparation costs, acquisition-related litigation claim and legal costs, stock-based compensation, amortization of acquired intangible assets, impairment charges and executive severance costs. Silvaco is unable to predict with reasonable certainty the ultimate outcome of these exclusions without unreasonable effort. Therefore, Silvaco has not provided guidance for GAAP gross margin or GAAP operating income or a reconciliation of the forward-looking non-GAAP gross margin or non-GAAP operating income guidance to GAAP gross margin or GAAP operating income, respectively. However, it is important to note that these excluded items could be material to our results computed in accordance with GAAP in future periods.

# Long-Term Financial Targets

	2022	2023	2024 Guidance	Long-Term Target
Revenue Growth YoY	11%	17%	10% - 16%	
Non-GAAP Gross Margin	81%	83%	85% - 87%	90%+
Non-GAAP Operating Income Margin <sup>(1)</sup>	5%	8%	8% - 13%	25%+


## Comments

- **Expect to Grow Base Business with Multiple Additional Growth Strategies by:**
  - Expanding global sales and support presence
  - Increasing adoption of FTCO™ Digital-Twin Modeling Product
  - Strengthening strategic technology and product development partnerships
- **Expect to Leverage Fixed Costs to Expand Gross Margins by:**
  - Upselling to existing customers
  - Utilizing current infrastructure to support new customers
- **Expect to Expand Operating Margins by:**
  - Leveraging significant G&A costs to support public company operations
  - Executing on accretive strategic acquisitions


1) See definition and GAAP to Non-GAAP reconciliation for Gross Profit, Gross Margin, Operating Income (loss) and Operating Margins in the appendices.


# Silvaco Investment Highlights


Enabling customers' next-generation products

 **High Barrier to Entry** Trusted and differentiated platform backed by decades of investment and expertise

 **Large and Growing Market Opportunity** Current \$3.1B+ opportunity<sup>(1)</sup> and further expansion with AI for Digital Twin

 **Differentiated Capabilities Provide Competitive Advantages** TCAD, EDA, and Semiconductor IP, plus Digital Twin technology for fab process

 **Proven with Top Tier Customers** Growing customer base with top-tier customers in established and new markets

 **Team with Deep Industry Expertise** Experienced management team with proven track-record of executing growth and profitable strategies, aiming to transform Silvaco into a market leader

1) Based on ESDA's breakdown of the EDA software market, which includes SIP, Silvaco estimates its solutions compete in portions of the EDA software market representing \$3.1 billion of the global aggregate EDA software market.

Thank you. | **SILVACO**



[investors.silvaco.com](https://investors.silvaco.com)



[ir@silvaco.com](mailto:ir@silvaco.com)

# Reconciliation—Non-GAAP Gross Profit and Gross Margin

## Appendix

(\$ in thousands)	Three Months Ended		Nine Months Ended	
	Sep. 30, 2023	Sep. 30, 2024	Sep. 30, 2023	Sep. 30, 2024
Gross Profit	\$12,670	\$8,186	\$35,088	\$32,201
Add:				
Stock-based compensation	—	313	—	2,780
Amortization of acquired intangibles <sup>(1)</sup>	—	249	—	498
<b>Non-GAAP Gross Profit</b>	<b>\$12,670</b>	<b>\$8,748</b>	<b>\$35,088</b>	<b>\$35,479</b>

	Three Months Ended		Nine Months Ended	
	Sep. 30, 2023	Sep. 30, 2024	Sep. 30, 2023	Sep. 30, 2024
Gross Margin	85%	75%	84%	77%
Add:				
Stock-based compensation	—	3%	—	7%
Amortization of acquired intangibles <sup>(1)</sup>	—	2%	—	1%
<b>Non-GAAP Gross Margin</b>	<b>85%</b>	<b>80%</b>	<b>84%</b>	<b>85%</b>

Note: We define non-GAAP Gross Profit and non-GAAP Gross Margin as our Gross Profit and Gross Margin adjusted to exclude stock-based compensation.

(1) Reflects the amortization of intangible assets attributable to our technology licenses.

# Reconciliation—Non-GAAP Operating Income (Loss)

## Appendix

(\$ in thousands)	Three Months Ended		Nine Months Ended	
	Sep. 30, 2023	Sep. 30, 2024	Sep. 30, 2023	Sep. 30, 2024
Operating Income (Loss)	\$1,742	(\$7,302)	\$3,070	(\$42,703)
Add:				
Stock-based Compensation	—	2,559	—	24,388
Acquisition-related litigation claim and legal costs <sup>(1)</sup>	723	1,883	1,192	19,194
Amortization of acquired intangibles <sup>(2)</sup>	82	295	257	661
IPO preparation costs <sup>(3)</sup>	197	—	1,176	873
<b>Non-GAAP Operating Income (Loss)</b>	<b>\$2,744</b>	<b>(\$2,565)</b>	<b>\$5,695</b>	<b>\$2,413</b>

Note: We define non-GAAP operating income (loss) as our operating income (loss) adjusted to exclude amortization of acquired intangible assets, certain non-recurring costs, including costs incurred as part of, and in preparation for, this offering, non-recurring costs of legal charges associated with legacy acquisitions, impairment charges, executive severance, and stock-based compensation.

1) Reflects litigation-related expenses incurred in connection with our acquisitions and the estimated Nangate litigation claim.

2) Reflects the amortization of intangible assets attributable to our acquisitions and technology licenses.

3) Reflects one-time costs including third-party professional services fees and costs incurred in connection with, and in preparation for our Initial Public Offering.