DEEP TECH UPDATE
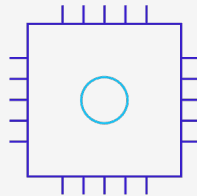
STRATEGIC M&A • VENTURE CAPITAL • INSIGHTS

AI & COMPUTER VISION

SEMICONDUCTOR ECOSYSTEMS

IoT & EDGE INTELLIGENCE
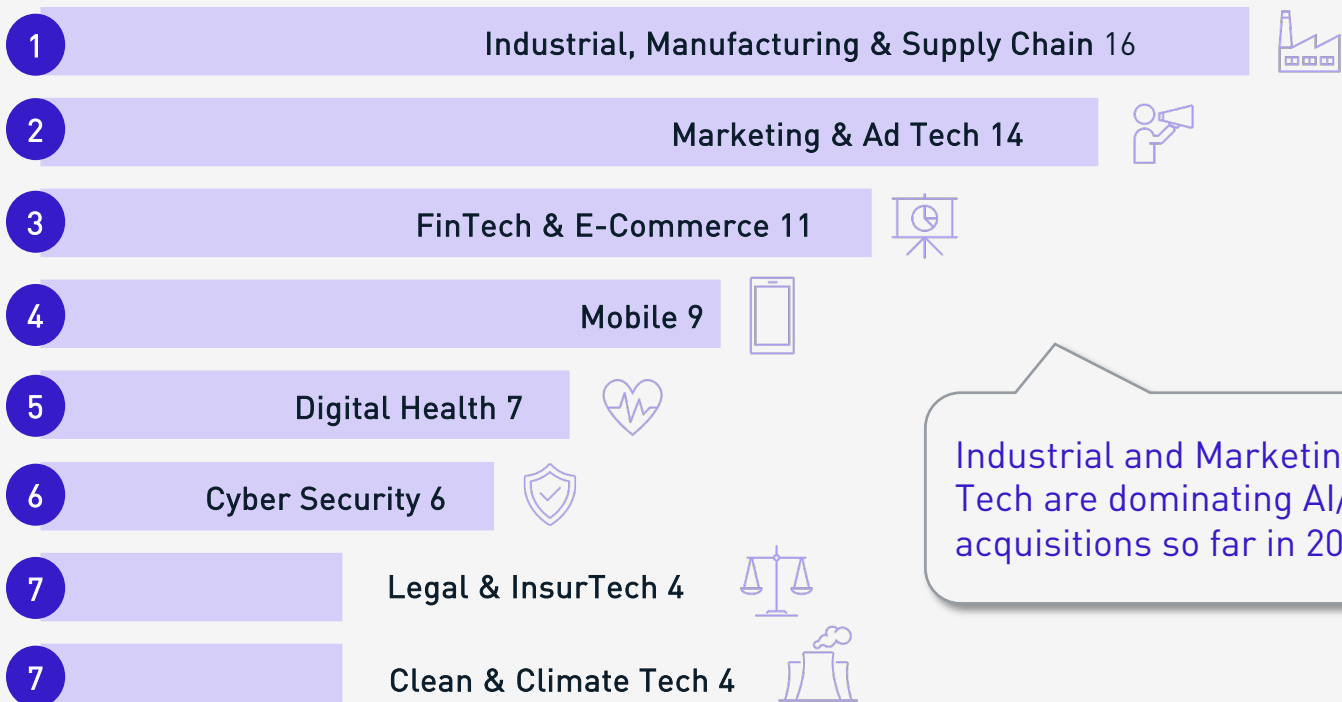
QUARTERLY UPDATE

May 2023

DEEP TECHNOLOGY

M&A, CAPITAL and INDUSTRY NEWS

Deep Tech Insights and News

- Wendy's & Google train its next-generation order taker, an AI chatbot.

- **Meta** hired engineers from **Graphcore** to support AI and machine learning in Meta's data centers. **Meta** is also reportedly designing a chip to train AI models and perform inference. The chip is not expected before 2025.

- **IBM** announced a service to help enterprises build generative AI-based applications, based on the AI behind ChatGPT.

- **Bessemer** is committing $1 billion to invest in AI

- **Top buyers in AI/ML and Computer Vision software** since 2018 were Apple, Microsoft, Servicenow, Cisco and DataRobot. Valuations dropped from an average revenue multiple of **8x** in 2021 to **4x** in 2022. Will multiples start to recover in 2023? It's too early to tell.

- **Top buyers in IoT and Semiconductor** since 2018 were Qorvo, Intel, Infineon, ST & Renesas.

- **Attending the Embedded Vision Alliance in Santa Clara May 22-24?** Meet Brent Lorenz and Simon Morris there!

Leading Vertical Markets – AI/ML Software Acquisitions in 2023[1]

1	Industrial, Manufacturing & Supply Chain 16
2	Marketing & Ad Tech 14
3	FinTech & E-Commerce 11
4	Mobile 9
5	Digital Health 7
6	Cyber Security 6
7	Legal & InsurTech 4
7	Clean & Climate Tech 4

> Industrial and Marketing Tech are dominating AI/ML acquisitions so far in 2023

MEET US AT EMBEDDED VISION SUMMIT 2023

CONNECTED VISION ADVISORS

Meet Brent Lorenz and Simon Morris from CVA at the Embedded Vision Summit in Santa Clara, May 22-24

contact@vision-connected.com

INTERESTING M&A TRANSACTIONS

AI, COMPUTER VISION, SEMICONDUCTOR ECOSYSTEMS, IoT

GEO SEMICONDUCTOR ACQUIRED BY INDIE SEMICONDUCTOR

DEAL METRICS: $270M ● 5.2x REVENUE MULTIPLE

GEO offers programmable camera video processors designed to provide a high-definition view of images and videos. The company's processors utilize geometric processing technology, image signal processing, and video compression to deliver a 360-degree view of the site, enabling clients to avail themselves of home monitoring, car monitoring, and other surveillance processes in a hassle-free way.

QEEXO ACQUIRED BY TDK

DEAL METRICS: NR

Qeexo provides a machine learning development platform designed to make mobile devices user-friendly. The company's platform helps users to collect, clean, and visualize sensor data and automatically build models using different algorithms, enabling component manufacturers to power new and exciting user experiences on their devices worldwide.

ALGOLUX ACQUIRED BY TORC ROBOTICS, DIVISION OF DAIMLER

DEAL METRICS: NR

Algolux offers autonomous vision and imaging technology intended to deliver a scalable perception for all conditions. The company leverages machine learning, deep perception technology, computational imaging, image processing, photography, and graphics to offer computer vision and cloud-based video analytics, enabling clients to get better results from their existing and new camera designs across all everyday scenarios like extreme lightning and adverse weather driving conditions efficiently.

INTERESTING VC TRANSACTIONS

SERIES B AND ABOVE, >$20M
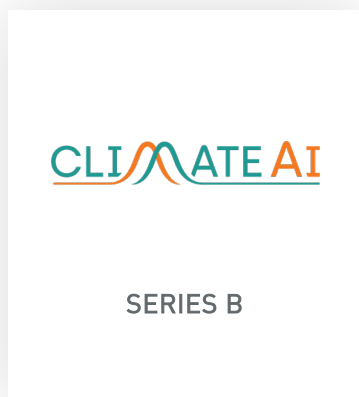
CLIMATEAI $22M SERIES B

POST-MONEY: $112M

INVESTORS: Neotribe Ventures, Radical Ventures, Yaletown Partners

ClimateAI offers a cloud-based enterprise software designed to predict the physical risk of climate change on assets. The company's platform uses an intuitive climate decision engine and open-source satellite imagery using statistical analysis and machine learning best practices, enabling investors, insurers, and governments to develop climate-resilient strategies.
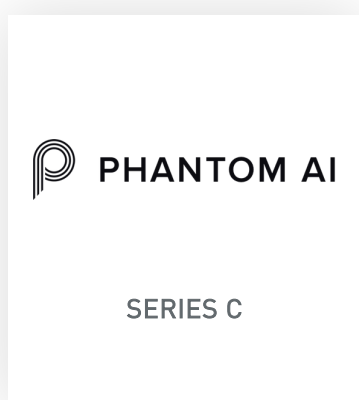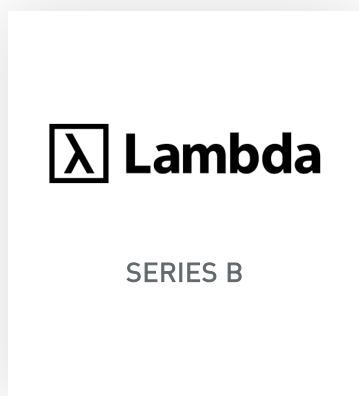
SERIES B

PHANTOM AI $42M SERIES C

POST-MONEY: $197M

INVESTORS: InverVest, Samsung Venture Investment, SK Teleecom

Phantom AI provides a driver assistance platform designed to create a natural vehicle movement by predicting the motion of objects. The company's platform uses an optical sensor suite and computer vision technology with deep-learning-based detection front-end and geometry-based filtering back-end systems, enabling car manufacturers to improve the systems of self-driving cars and make driving an enjoyable experience.

SERIES C

LAMBDA $44M SERIES B

POST-MONEY: $170M

INVESTORS: Mercato Partners, Redefine Ventures, multiple individual investors

A Lambda is a deep learning infrastructure company selling software-enhanced compute systems and GPU cloud services to enterprises, AI startups, and research universities. The company's cloud technology, servers, and workstations are pre-configured with common ML frameworks, enabling clients to simplify and accelerate the training and deployment of deep learning models.

SERIES B

AI, ML and COMPUTER VISION SOFTWARE

STRATEGIC M&A

TRANSACTIONS

Valuations peaked in 2021

Deal counts still strong **growth** over 2017-23 (annualized)

	2018	2019	2020	2021	2022	2023 Annualized
Deal Count	225	291	275	555	455	365
Revenue Multiple		4.1	5.4	8.3	3.7	

◼ **Deal Count** ━━ **Revenue Multiple**

TOP BUYERS – DEAL COUNT SINCE 2018

Buyer	Deals
Apple	18
Microsoft	10
accenture / servicenow	9
CISCO / DataRobot	8
ORACLE	7
Meta / IBM	6
intel	5
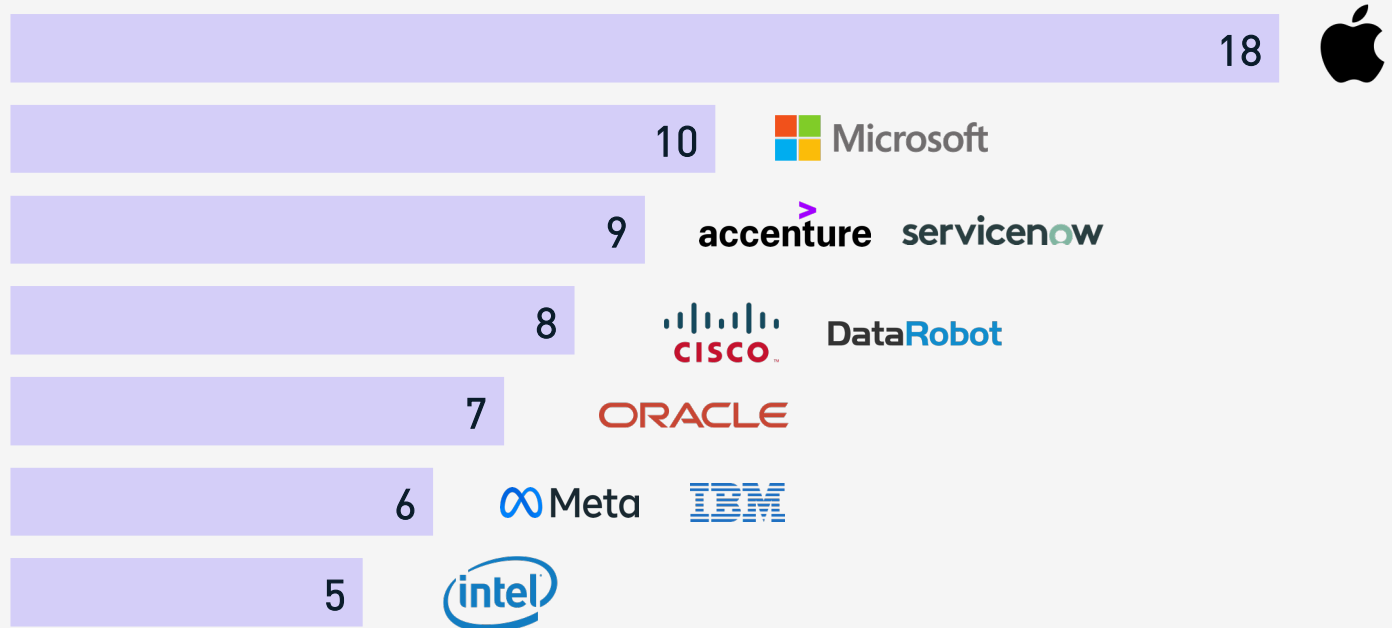
1,502 buyers with at least 1 deal

Source: PitchBook

AI, ML and COMPUTER VISION SOFTWARE

GROWTH EQUITY, SERIES B AND HIGHER

TRANSACTIONS

Significant drop in deal count and valuations

	2018	2019	2020	2021	2022	2023 Annualized
Median Post	$90M	$109M	$109M	$194M	$148M	$83M
Deal Count	485	532	614	1,004	808	404

Deal Count   Median Post
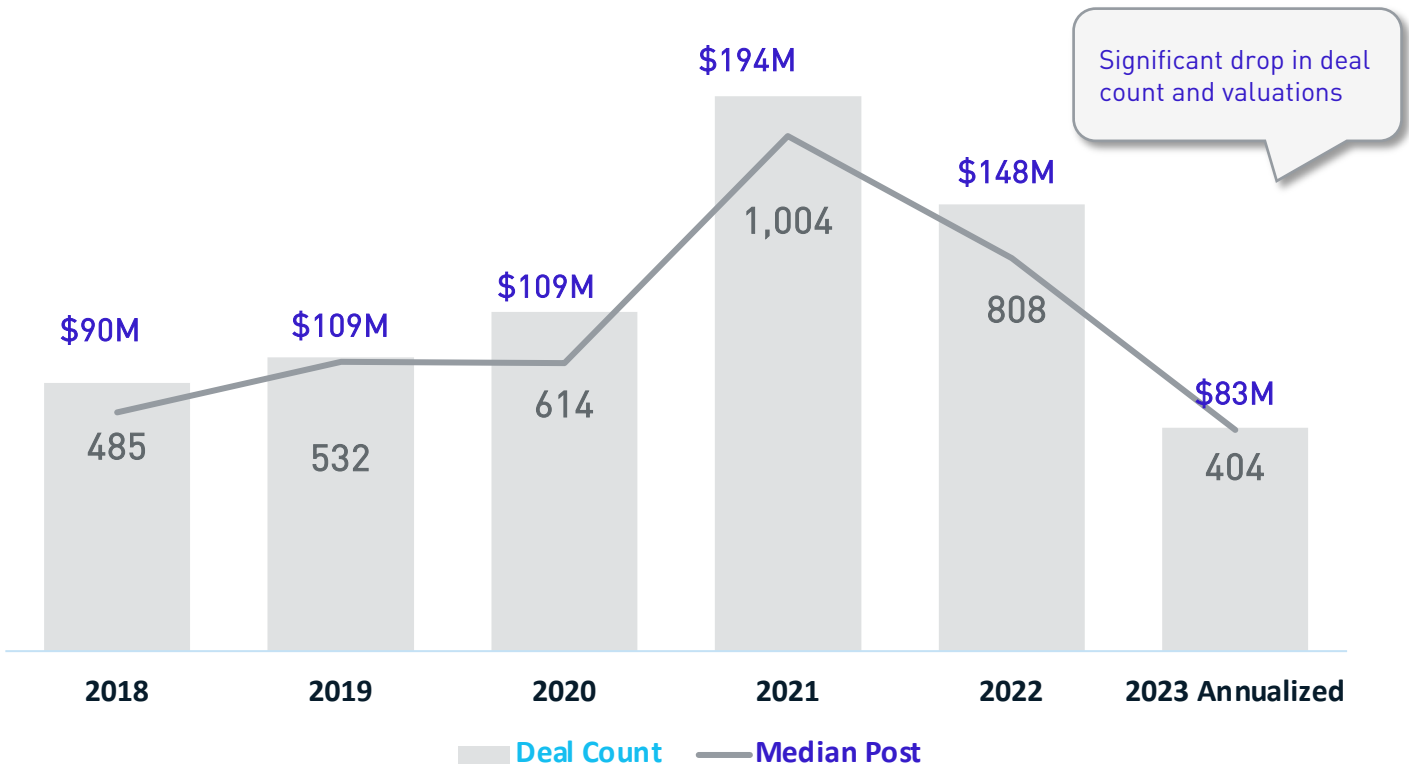
TOP INVESTORS – DEAL COUNT SINCE 2018

109	TIGERGLOBAL
101	INSIGHT PARTNERS
70	SEQUOIA
59	andreessen horowitz Accel
54	NORWEST
51	SoftBank
49	Lightspeed
47	intel Capital GV
45	Bessemer Venture Partners
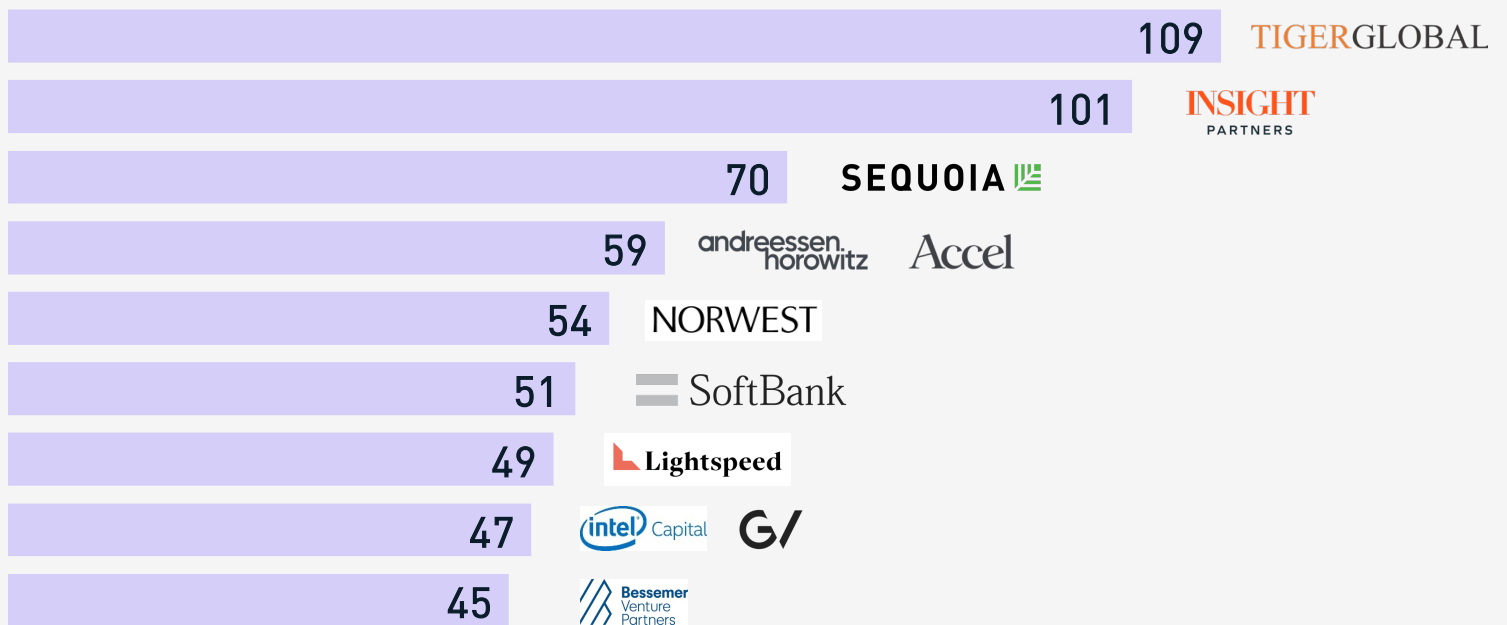
7,917 investors with at least 1 deal

IoT and SEMICONDUCTOR

STRATEGIC M&A

TRANSACTIONS

Valuations down from 2021 but generally flat since 2018

Deal counts at 2020 levels

Year	2018	2019	2020	2021	2022	2023 Annualized
Revenue Multiple	2.5	2.0	2.2	2.7	1.7	2.0
Deal Count	266	233	214	285	286	220

Deal Count   ——— Revenue Multiple

TOP BUYERS – DEAL COUNT SINCE 2018

7 — QORVO

6 — intel, Infineon, ST

5 — RENESAS, MARVELL

4 — Google, HID

3 — Apple, Microsoft, SIEMENS, amazon, SECO
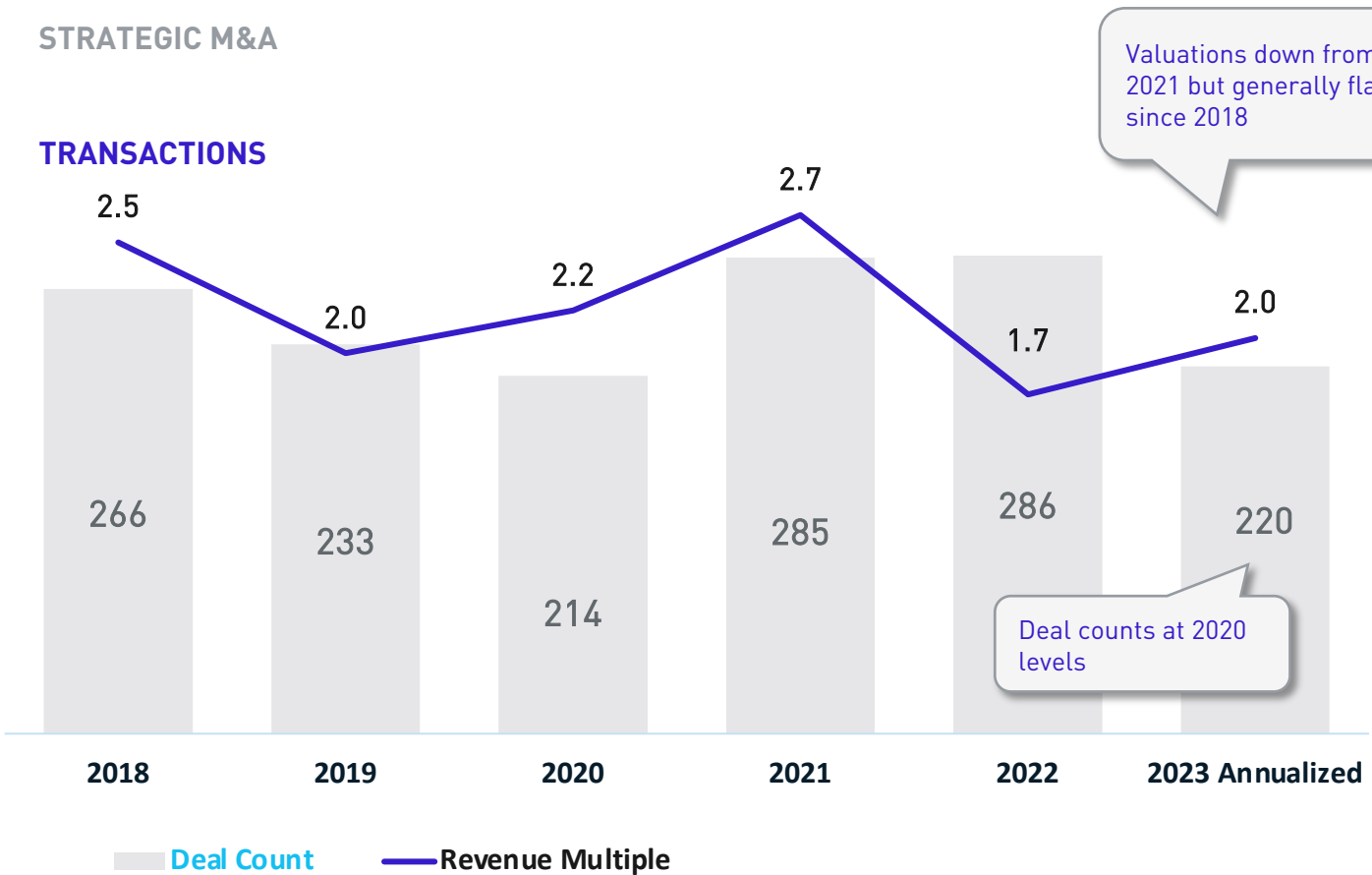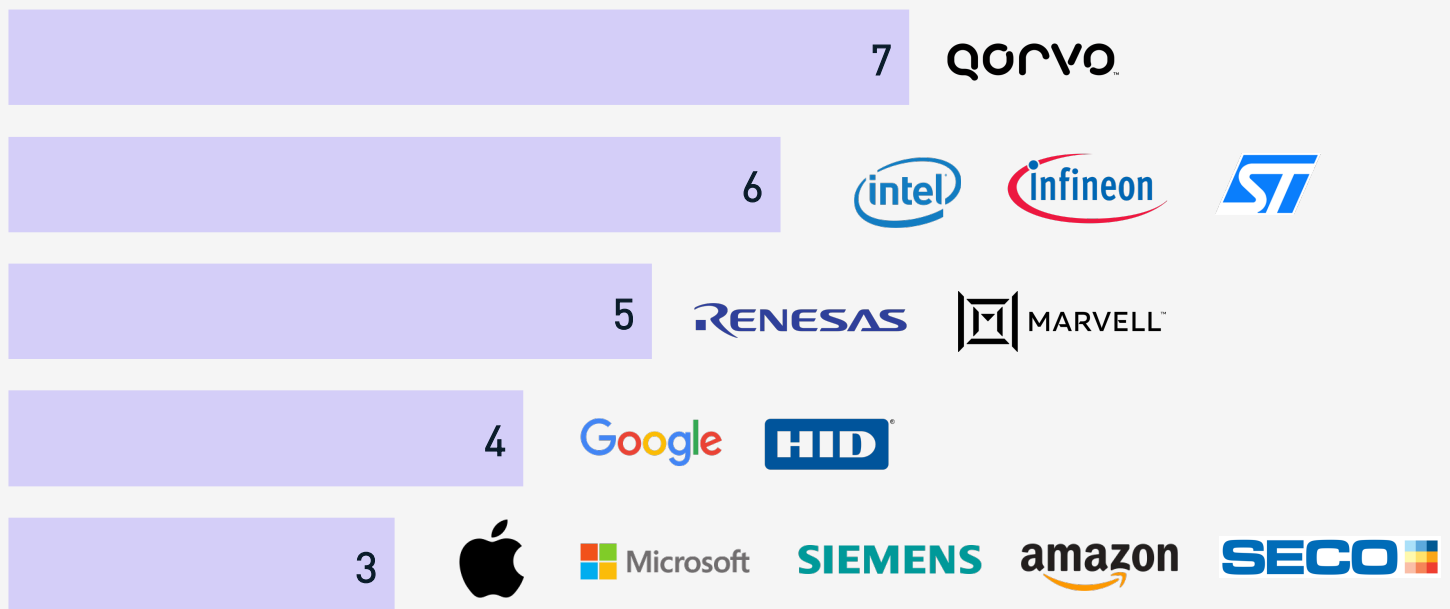
1,035 buyers with at least 1 deal

IoT and SEMICONDUCTOR
GROWTH EQUITY, SERIES B AND HIGHER

TRANSACTIONS

Valuations and deal count have retreated to **about 2019 levels**

Year	$81M	$99M	$116M	$135M	$145M	$100M

Deal Count values:
- 2018: 254
- 2019: 243
- 2020: 303
- 2021: 416
- 2022: 384
- 2023 Annualized: 249

Median Post values:
- 2018: $81M
- 2019: $99M
- 2020: $116M
- 2021: $135M
- 2022: $145M
- 2023 Annualized: $100M

Deal Count — **Median Post**
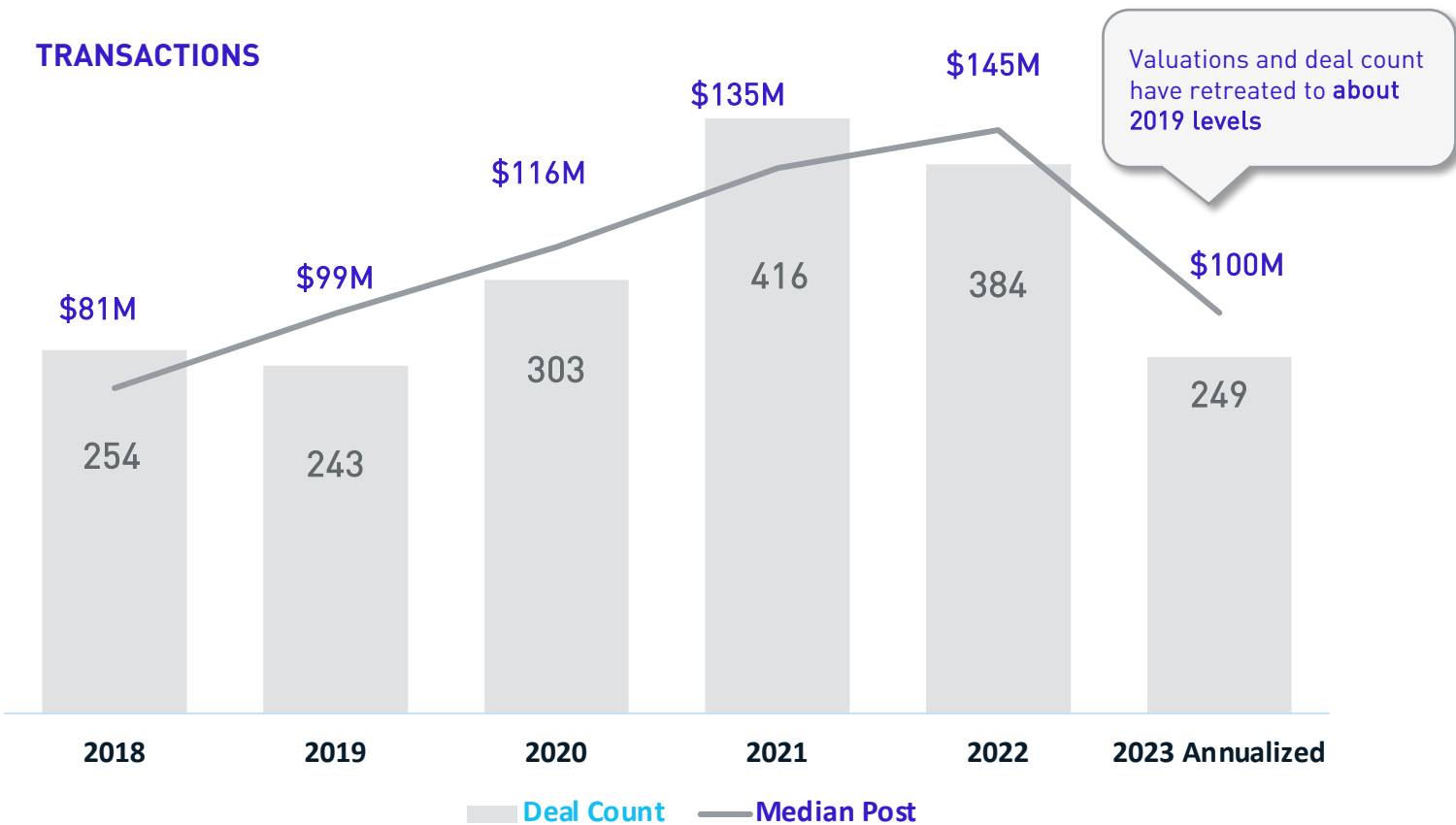
TOP INVESTORS SINCE 2018

Investor	Deals
intel Capital	42
QUALCOMM VENTURES	30
ALUMNI VENTURES GROUP	21
Celesta	20
INSIGHT PARTNERS	18
BOSCH	17
SAMSUNG / WALDEN INTERNATIONAL	16
ATLANTIC BRIDGE	12
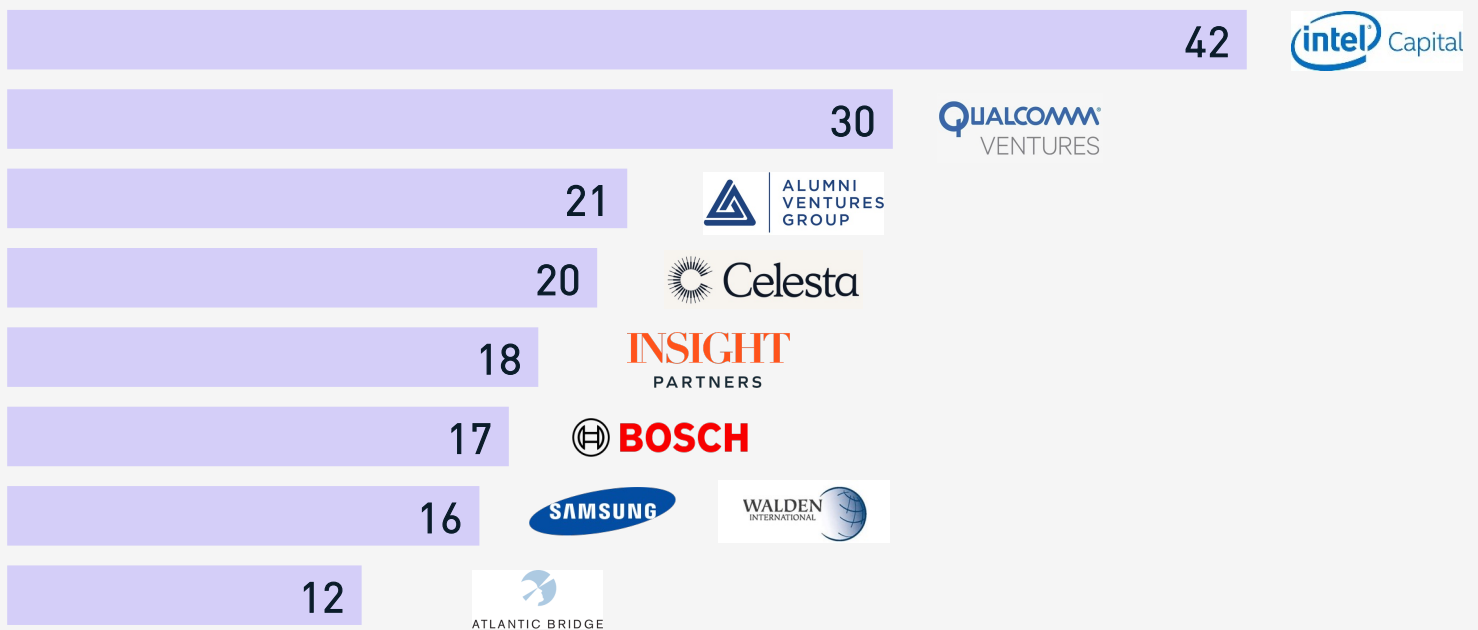
4,084 investors with at least 1 deal

Source: PitchBook

RECENT M&A TRANSACTIONS

STRATEGIC ACQUISITIONS

TARGET	BUYER	VALUE ($M)	REVENUE MULTIPLE	DESCRIPTION
Cardea	Paragraf			Graphene biosensors
TSI Semiconductors	Bosch			Analog and mixed signal power management
Codiga	Datadog			Code analysis for quality and vulnerabilities
Era Software	ServiceNow			Time-series database for machine learning and anomaly detection
Cipher	RELX	36		IP analysis platform for patent intelligence
Ericsson (IoT business)	Aeris			IoT connectivity for 9,000 enterprises
Berkshire Grey	SoftBank	375	5.7x	AI robotics for automated fulfillment
Panthronics	Renesas			Wireless connectivity for IoT
Flutura	Accenture			IoT platform for industrial machinery
Morphosense	Sercel			Structural health monitoring & sensor fusion
Vivint Smart Home	NRG	2,800	1.7x	Smart home
Mimosa Networks	Radisys	60		5G broadband communication services
Libelium	Kira Green Waves			IoT wireless sensor platform
GEO Semiconductor	indie Semiconductor	270	5.2x	Programmable video processors
Linearizer Communications Group	MACOM	49		Microwave photonics
GaN Systems	Infineon	830		GaN power semiconductors
Qeexo	TDK			Machine learning development platform
Lemonbeat	E.ON One			IoT communication platform
SparkAI	John Deere			Automation software platform
Algolux	Torc Robotics			Autonomous vision and imaging for all conditions

RECENT VC TRANSACTIONS

CAPITAL RAISE, SERIES B+ >$20M

COMPANY	SERIES	DEAL SIZE ($M)	POST MONEY ($M)	DESCRIPTION
Scatter Lab	C	11	163	AI mobile application
Pinecone	B	100	750	Vector database to deploy ML applications at scale
OnSiteIQ	B	10	63	Construction documentation software
Odeko	D	54	604	Supply chain analysis sofware
Datasembly	B	21	85	Data analytics for NLP and ML
Celestial AI	B	96	320	Data center and edge AI for deep learning
ClimateAI	B	22	112	Software predicting effects of climate change
EdgeQ	B	72	300	5G systems for connectivity and AI
Covariant	C1	75	625	AI-based robots and software for enterprises
Carbon Robotics	C	30	154	Robotics for weed elimination
Potrero	D	18	108	Predictive health monitoring (medical)
Phantom AI	C	42	197	Driver assistance predicting the motion of objects
Cognosos	C	25	105	Wireless battery sensor platform
Empower Semiconductor	C2	30	201	Power management
Lambda	B	44	170	Deep learning infrastructure software
Adept	B	350	1,000	ML model reimagining how people interact with computers
Soft Robotics	C	26	90	Robotic end-of-arm tools for automation
Third Wave Automation	B	10	145	Autonomous forklift technology
Peaxy	B	12	67	Predictive analytics for battery and energy

ABOUT CONNECTED VISION ADVISORS

DEEP TECH INVESTMENT BANKING
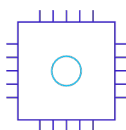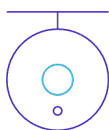
+ We are a deep tech investment banking firm. We advise on M&A and capital raise transactions. We are experts at driving strategic value in technology deals.

+ We aren't your typical financial bankers. We are electrical engineers and former executives, and we have seen deals from all sides: large tech, startups and as bankers. Our experience gives us unique insights that helps us drive the best outcome for our clients.

+ We focus on AI, Computer Vision, Semiconductor Ecosystems and Edge Intelligence, working with market-leading software, hardware and IP companies.

+ Our team is global, based in the USA, Europe and Canada. We have deep experience doing deals across North America and Europe.

+ We work with buyers and investors like Qualcomm, SONY, Cisco, ARM, Bosch, Amazon, Renesas, Intel, Lattice, Cadence, Faurecia and many more.

Transaction Experience

ARDUINO Series B — BOSCH, arm, RENESAS, ANZU PARTNERS	**RADAR IMAGING SEMICONDUCTOR** Has been acquired by RENESAS	**mirametrix** Has been acquired by LATTICE SEMICONDUCTOR	**SPORTS TECH COMPUTER VISION AI** Has been acquired by Qualcomm	**SMART BUILDING COMPUTER VISION AI** Has been acquired by CISCO	**VanGogh Imaging** IP licensed by INTUITIVE SURGICAL
IoT Security & AIOPS Has been acquired by vmware	**CLOUD NATIVE ACTIVE TESTING** Has been acquired by JUNIPER NETWORKS	**SMART GRID IoT** Has been acquired by KOCH	**cognivue** Innovating With Vision Has been acquired by freescale semiconductor	**IRYStec** faurecia Strategic Advisory	**TWISTEDPAIR** Has been acquired by MOTOROLA SOLUTIONS

Note: All transactions above advised by current CVA team members. Some transactions were completed while affiliated with previous firms.

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