PitchBook

EMERGING TECH RESEARCH

AI & ML VC Trends

VC activity across the AI & ML ecosystem

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Institutional Research Group

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AI & ML landscape

1. Horizontal platforms
2. Vertical applications
3. Semiconductors
4. Autonomous machines
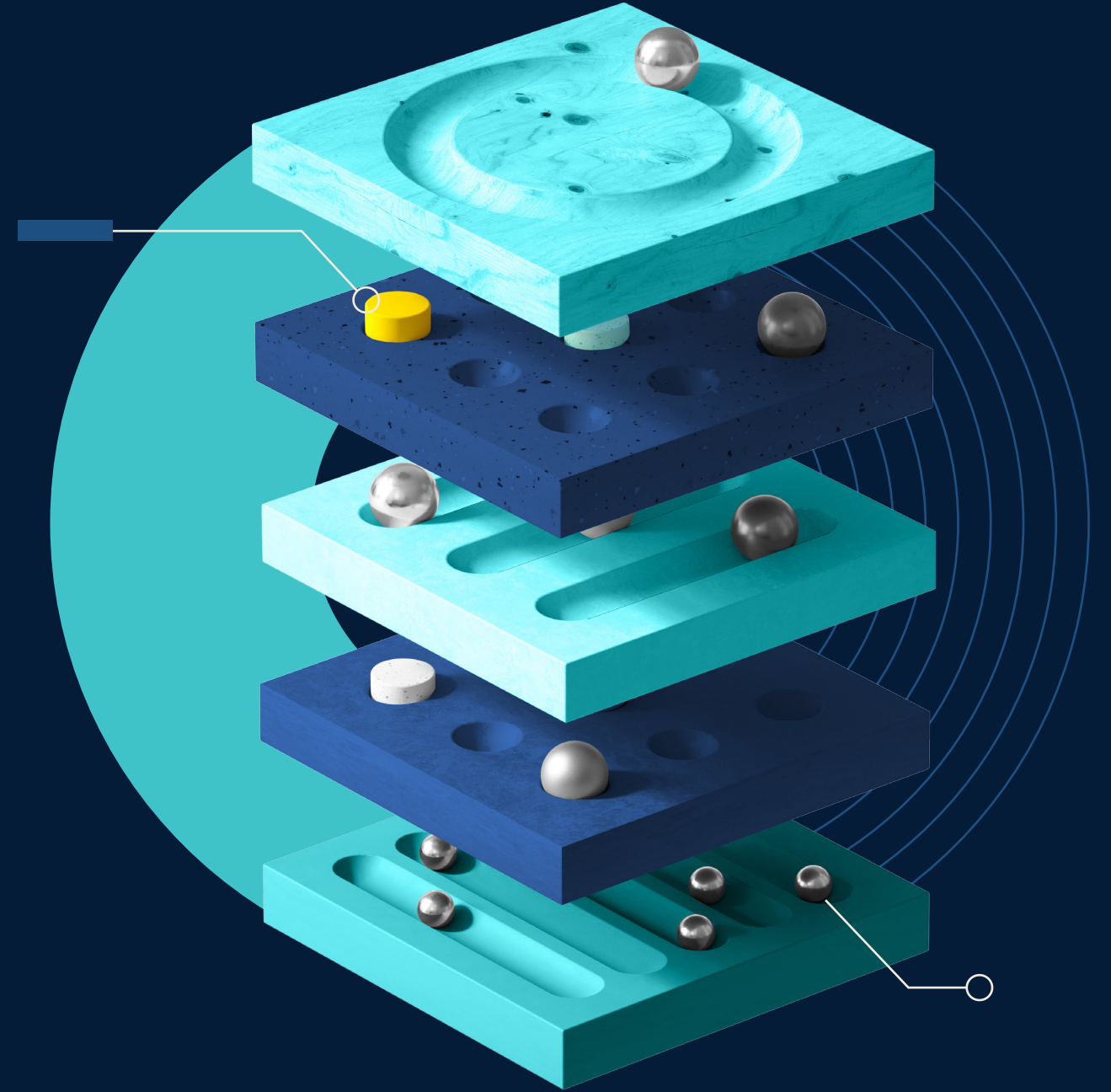
AI & ML VC ecosystem market map

This market map is an overview of venture-backed or growth-stage companies that have received venture capital or other notable private investments.
**The full market map can be viewed on the PitchBook Platform.**

VC activity

AI captured one in every four VC dollars globally in 2024, a trend likely to accelerate as adoption deepens and infrastructure scales. Capital continues to flow into both horizontal platforms such as OpenAI and Anthropic and sector-specific vertical applications built on top of them. Falling development costs at the application layer are fueling record deal volume even as funding remains concentrated at the top. This report breaks down the split between platform and application layers, recent exit activity, and shifting valuation dynamics

AI and machine learning (ML) startups raised a record-breaking $73.6 billion across 1,603 deals in Q1 2025, marking the highest quarterly total on record by deal value. Deal counts were at their highest level since Q1 2024. Horizontal AI platforms captured the lion's share, securing just under $50 billion across 425 deals, accounting for nearly 70% of total capital raised during the quarter. Horizontal platforms are general-purpose tools, such as large language models and infrastructures that support a wide range of industries

In contrast, vertical application startups led in deal volume, notching 1,022 transactions, roughly 60% of all deals, with an aggregate deal value of $19.2 billion. Vertical applications are tailored to specific sectors and built on top of horizontal platforms, which enable domain-specific performance and integration.

The stark contrast between capital raised and deal count reflects underlying cost dynamics. Vertical models can be developed with just $3 million to $10 million in funding, while horizontal large language model (LLM) development can cost hundreds of millions of dollars at the high end. This cost differential has lowered the barrier to entry at the application layer, where most AI startups are building on existing horizontal platforms. Another driving force behind the surge in vertical deals is the opportunity for startups to develop specific solutions with commercial value to large enterprises across industries and sectors.

Horizontal platforms VC deal activity
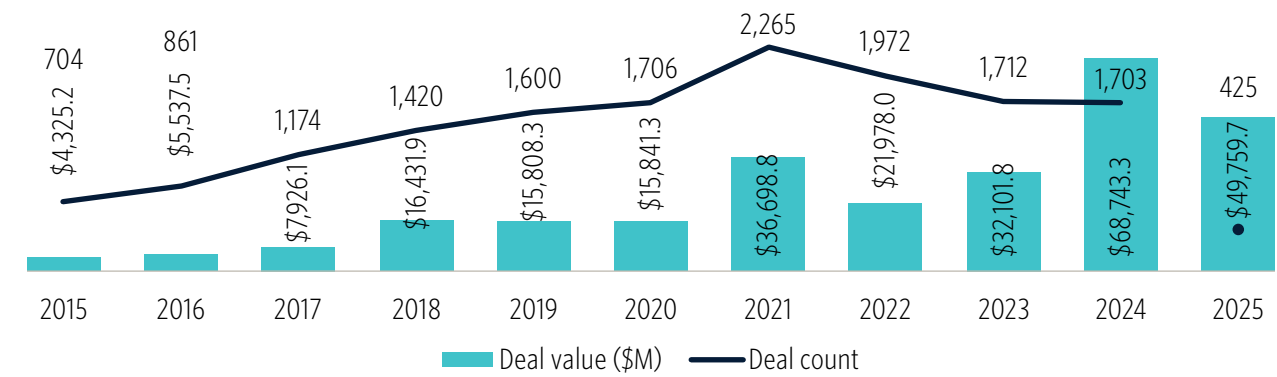
Source: PitchBook • Geography: Global • As of March 31, 2025

Vertical applications VC deal activity
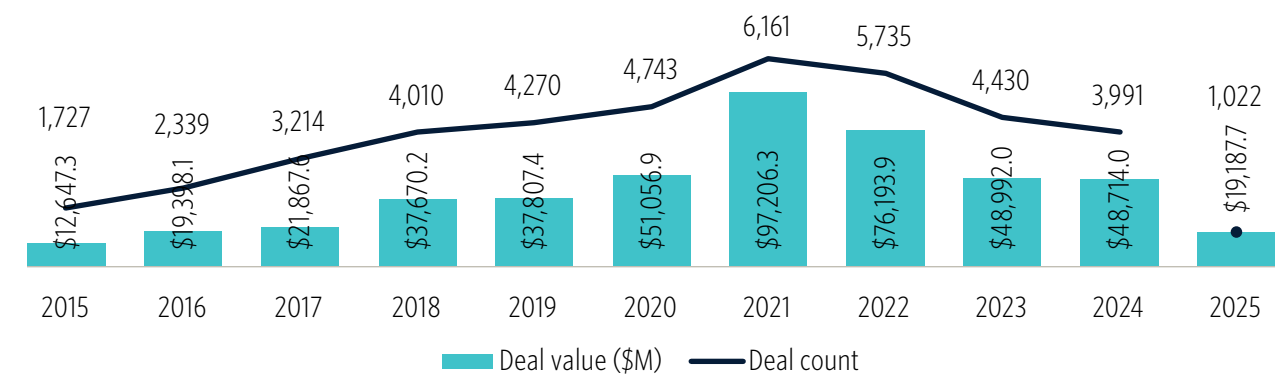
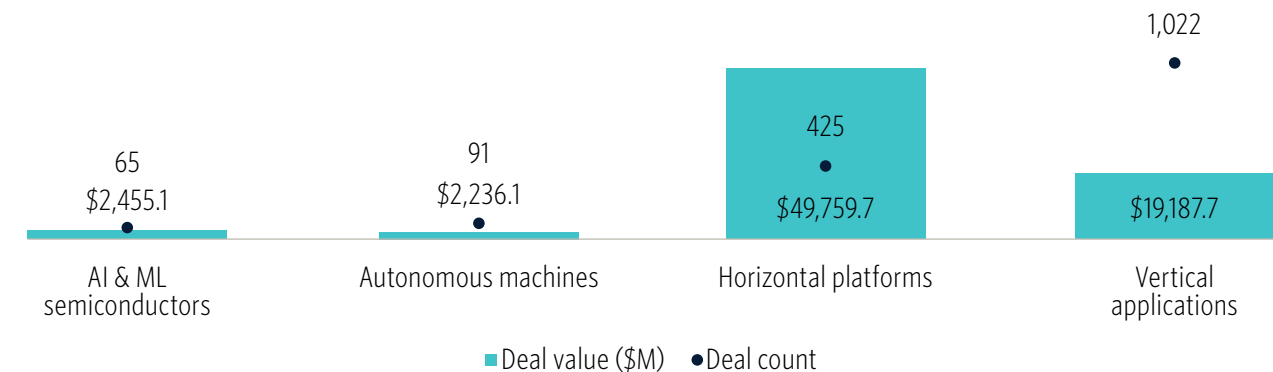Source: PitchBook • Geography: Global • As of March 31, 2025

This contrast between horizontal and vertical platforms extends across a trailing 12-month period. Horizontal platforms attracted $107.3 billion in deal value across 1,673 transactions, nearly double the approximately $58 billion raised by vertical applications. However, verticals recorded 3,961 deals over the same period, more than twice the deal volume of horizontal platforms, underscoring a persistent split between capital intensity and deal activity.

Venture-growth deals generated the highest deal value in Q1 2025 at $49.4 billion, late-stage (series C and D) VC rounds reached $14.1 billion, and early-stage (series A and B) startups raised $7.3 billion. This distribution of capital by VC lifecycle stage was consistent across sub-verticals such as semiconductors, autonomous machines, and vertical applications.

VC exit activity in Q1 2025 totaled 146 deals, a slight decline from 154 in the prior quarter. Despite the dip in volume, exit value reached $27.4 billion, marking the strongest quarterly total since Q4 2021. Public listings accounted for $21.5 billion of that figure, while acquisitions and buyouts contributed $2.7 billion and $3.2 billion, respectively. Exit counts remained skewed toward acquisitions at 105, with buyouts at 30 and 11 public listings. The concentration of exit value in IPOs highlights the impact of a few outsize listings driving quarterly exit value. The majority of activity was propelled by AI hyperscaler CoreWeave, which went public on March 28 with a post-money valuation of $14.5 billion. The second-largest IPO was Blocks Group, a China-based B2C company, which debuted on January 10 with a post-money valuation of $1.9 billion.

Many acquisitions were driven by well-capitalized VC-backed companies pursuing bolt-on acquisitions to accelerate growth or expand capabilities. Acqui-hires remain common, particularly in AI and software, where talent scarcity can justify premium valuations.

Q1 2025 AI & ML TTM VC deal activity by segment

- Deal value ($M) ● Deal count

Source: PitchBook • Geography: Global • As of March 31, 2025

AI & ML VC deal value ($B) by stage
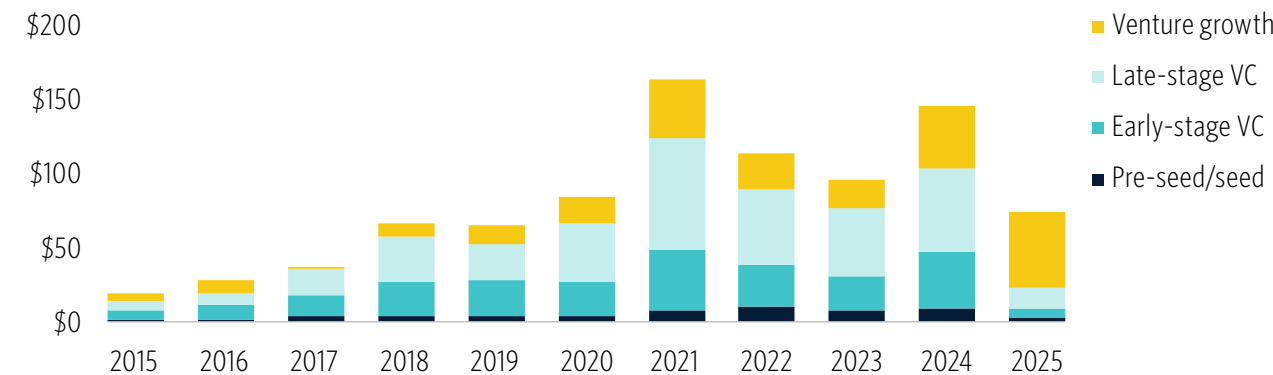
- Venture growth
- Late-stage VC
- Early-stage VC
- Pre-seed/seed

Source: PitchBook • Geography: Global • As of March 31, 2025

Median VC pre-money valuations climbed to $12.7 million at the pre-seed/seed stage, $57 million at the early stage, and $53.2 million at the late stage. Valuations peaked in the venture-growth stage at $325 million, reflecting sustained investor appetite for mature, scaled startups. Late-stage VC led all stages in deal count with 156, narrowly surpassing pre-seed/seed at 152. Overall, median VC pre-money valuations climbed from $24.4 million in 2024 to $32.3 million in 2025. Deal sizes were concentrated in a similar way, with venture-growth deals posting a median of $31.2 million, more than triple that of early-stage VC at $9 million.

From 2014 to 2025, early-stage VC posted the highest CAGR in median pre-money valuations at 17.14%, outperforming pre-seed/seed at 12.73%, venture growth at 8.69%, and late-stage VC at 8.36%. Despite venture-growth rounds commanding the highest dollar figures, early-stage valuations grew at a faster and more consistent pace over the period. The data suggests that early-stage companies gained favor with investors seeking scalable opportunities without the pricing pressure seen in later rounds. As late-stage and venture-growth markets cooled following the 2021 peak, capital increasingly shifted toward earlier stages, driven by more favorable entry points and stronger long-term upside.

Median VC pre-money valuation step-ups rose from 1.54x in 2024 to 1.7x in Q1 2025. Pre-seed/seed rounds recorded the strongest increase, with step-ups climbing from 1.47x to 1.72x, as investors pursued early-stage upside off lower valuation bases. Early-stage deals saw a more modest rise in pre-money step-ups, from 2x to 2.08x. Late-stage step-ups increased from 1.43x to 1.52x, while venture growth rose from 1.2x to 1.32x.
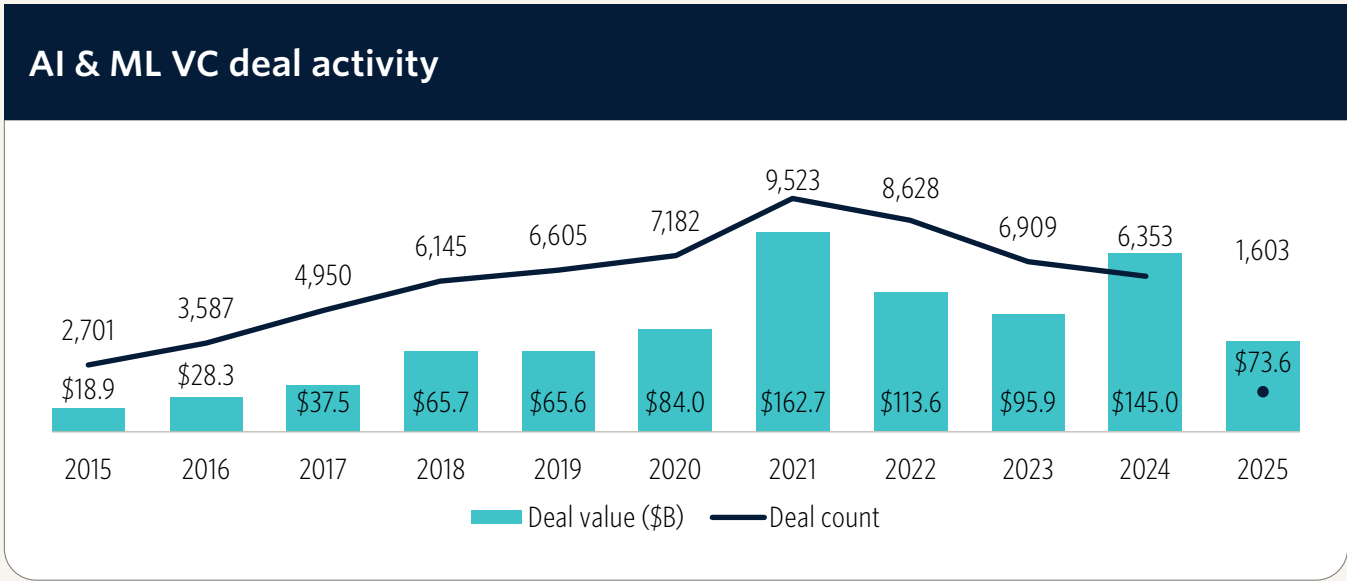
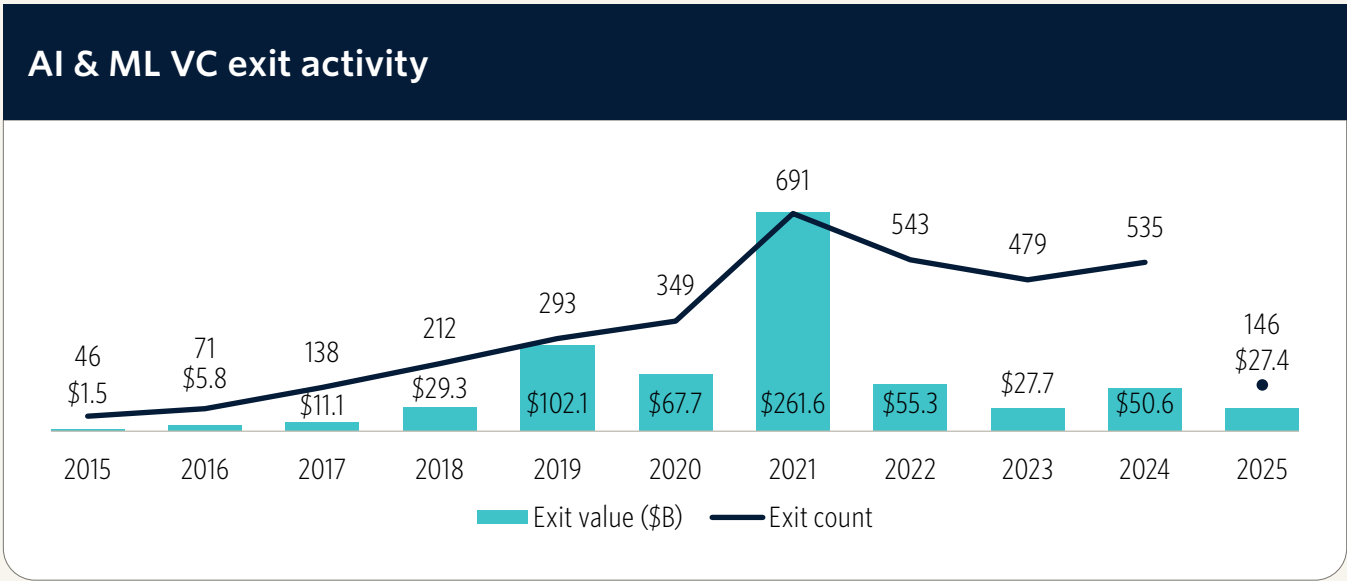## AI & ML median VC pre-money valuation step-up by stage

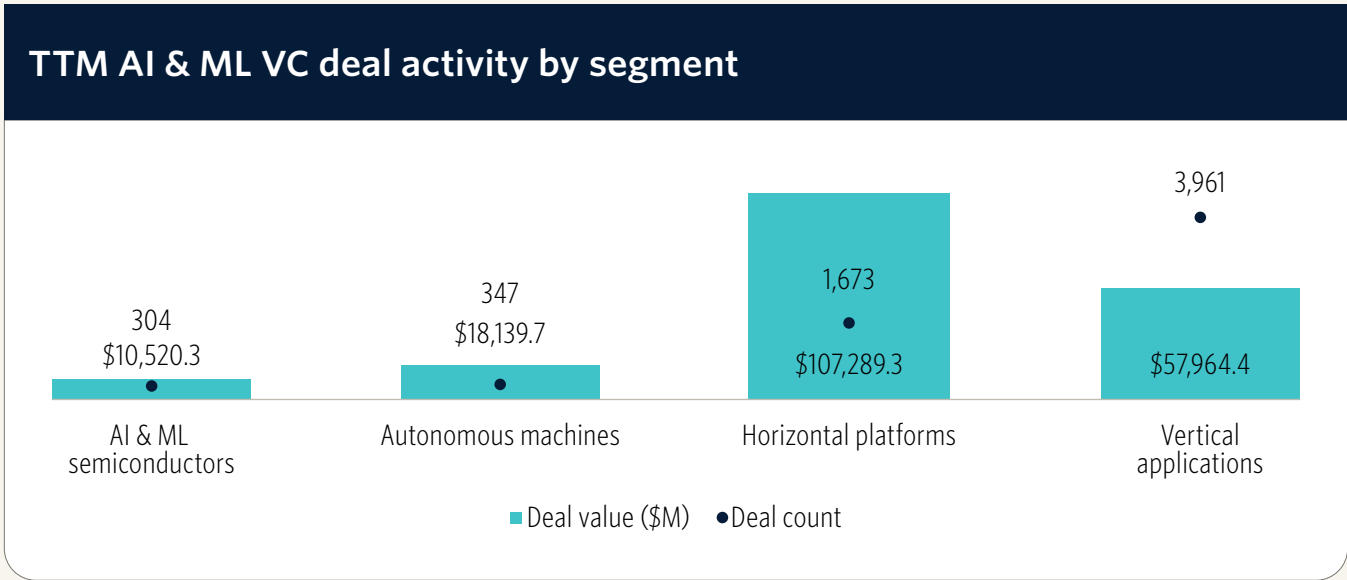Source: PitchBook • Geography: Global • As of March 31, 2025

AI & ML VC deal activity

Deal value ($B) — Deal count

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Deal count	2,701	3,587	4,950	6,145	6,605	7,182	9,523	8,628	6,909	6,353	1,603
Deal value ($B)	$18.9	$28.3	$37.5	$65.7	$65.6	$84.0	$162.7	$113.6	$95.9	$145.0	$73.6

Source: PitchBook • Geography: Global • As of March 31, 2025

AI & ML VC exit activity

Exit value ($B) — Exit count

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Exit count	46	71	138	212	293	349	691	543	479	535	146
Exit value ($B)	$1.5	$5.8	$11.1	$29.3	$102.1	$67.7	$261.6	$55.3	$27.7	$50.6	$27.4

Source: PitchBook • Geography: Global • As of March 31, 2025

TTM AI & ML VC deal activity by segment

Deal value ($M) • Deal count

Segment	AI & ML semiconductors	Autonomous machines	Horizontal platforms	Vertical applications
Deal count	304	347	1,673	3,961
Deal value ($M)	$10,520.3	$18,139.7	$107,289.3	$57,964.4

Source: PitchBook • Geography: Global • As of March 31, 2025

Median AI & ML VC deal value ($M) by stage

$15.0
$8.0
$6.7
$3.0

$31.2
$9.0
$8.7
$3.5

Pre-seed/seed — Early-stage VC — Late-stage VC — Venture-growth VC
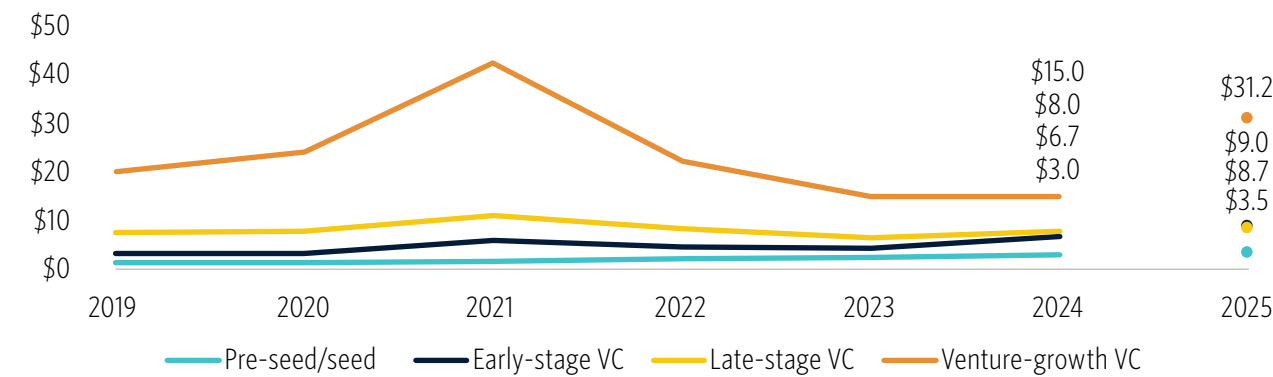
Source: PitchBook • Geography: Global • As of March 31, 2025

Median AI & ML VC pre-money valuation ($M) by stage

$196.0
$43.5
$42.0
$12.6
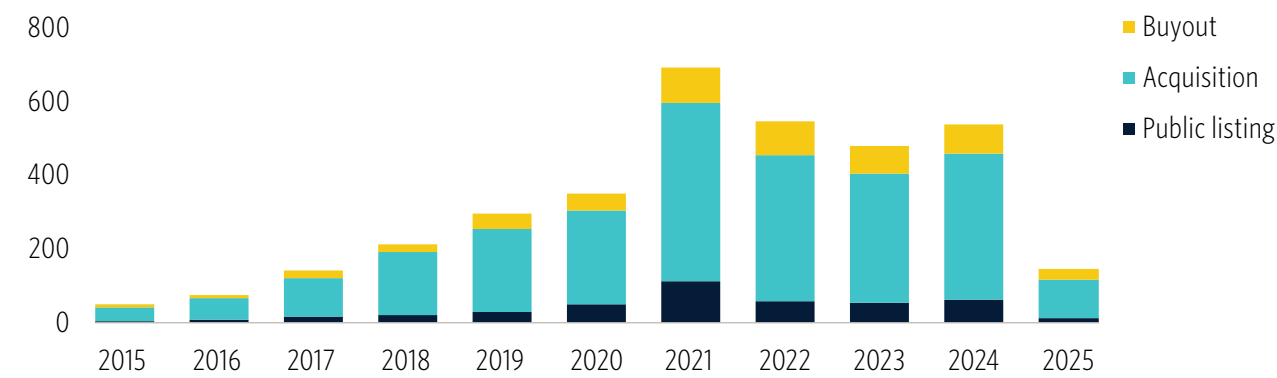
$325.0
$57.0
$53.2
$12.7

Pre-seed/seed — Early-stage VC — Late-stage VC — Venture-growth VC
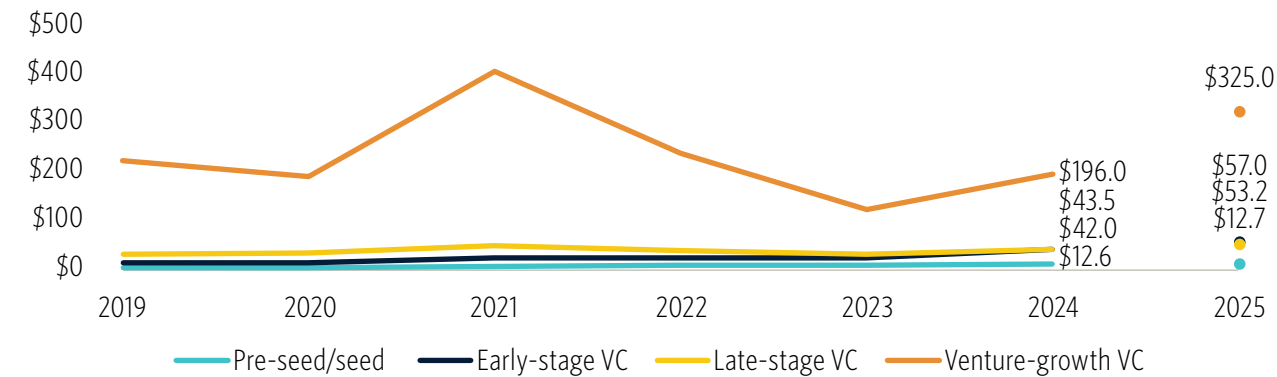
Source: PitchBook • Geography: Global • As of March 31, 2025

AI & ML VC exit value ($B) by type

Buyout
Acquisition
Public listing
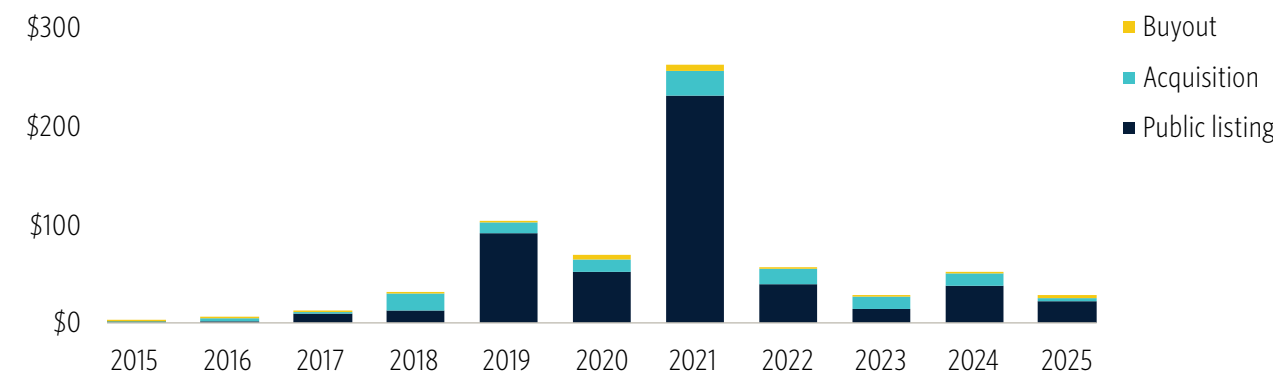
Source: PitchBook • Geography: Global • As of March 31, 2025

AI & ML VC exit count by type

Buyout
Acquisition
Public listing

Source: PitchBook • Geography: Global • As of March 31, 2025

Key Q1 2025 AI & ML early-stage VC deals

Company	Close date	Segment	Category	Deal value ($M)	Post-money valuation ($M)	Lead investor(s)	Valuation step-up
Zenmev	March 11	Vertical applications	Financial services	$140.0	N/A	N/A	N/A
Endless	March 4	Horizontal platforms	AI core	$110.0	$1,000.0	N/A	N/A
WithClutch	January 23	Vertical applications	Financial services	$65.0	$500.0	Alkeon Capital Management	2.1x
Rhino.ai	January 21	Horizontal platforms	AI automation platforms	$50.0	$450.0	Koch Disruptive Technologies	N/A
LiveKit	January 24	Horizontal platforms	Natural language technology	$45.0	$345.0	Altimeter Capital Management	2.6x
Meanwhile	March 12	Vertical applications	Financial services	$44.0	$190.0	Framework Ventures, Fulgur Ventures	1.5x
Latent Labs	February 12	Vertical applications	Healthcare	$39.9	$139.9	Radical Ventures, Sofinnova Partners	3.4x
Protex AI	January 30	Horizontal platforms	Computer vision	$36.0	N/A	Hedosophia	N/A
Avelios Medical	February 6	Vertical applications	Healthcare	$31.1	N/A	Sequoia Capital	N/A
Grand Games	January 9	Vertical applications	Consumer AI	$30.0	N/A	Balderton Capital	N/A

Source: PitchBook • Geography: Global • As of March 31, 2025

Key Q1 2025 AI & ML VC exits

Company	Close date	Segment	Category	Exit value ($M)	Post-money valuation ($M)	Exit type	Acquirer(s)/index
CoreWeave	March 28	AI & ML semiconductors	GPU cloud	$17,100.4	$14,492.8	IPO	Nasdaq
Blocks Group	January 10	Vertical applications	Consumer	$1,687.6	$1,902.9	IPO	N/A
Access Healthcare	January 14	Vertical applications	Healthcare	$1,450.0	$2,000.0	Buyout/LBO	Eir Partners, New Mountain Capital
Hanshow	March 11	Horizontal platforms	AI automation platforms	$1,438.5	$1,598.4	IPO	N/A
Metaphysic	February 14	Horizontal platforms	AI core	$1,430.0	$1,430.0	Buyout/LBO	DNEG, Novator Partners, United Alsaqer Group
EvolutionIQ	January 6	Vertical applications	Financial services	$730.0	$730.0	M&A	CCC Intelligent Solutions
Beta Bionics	January 30	Vertical applications	Healthcare	$524.6	$728.6	IPO	Nasdaq
66Nao Brain Training	January 8	Vertical applications	Healthcare	$449.6	$524.6	IPO	Hong Kong Stock Exchange
Gretel	March 19	Horizontal platforms	AI automation platforms	$320.0	$320.0	M&A	Nvidia
Kinara	February 18	AI & ML semiconductors	Processor design	$307.0	$307.0	M&A	NXP Semiconductors

Source: PitchBook • Geography: Global • As of March 31, 2025

AI & ML VC deal summary

	Quarterly activity					Trailing 12-month activity	
	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2023 to Q1 2024	Q2 2024 to Q1 2025
Deal count	**1,671**	**1,573**	**1,547**	**1,562**	**1,603**	**6,717**	**6,285**
QoQ change	1.7%	-5.9%	-1.79%	1.0%	2.6%	N/A	-6.4%
Share of total VC	14.5%	15.4%	16.4%	16.5%	17.4%	15.6%	16.4%
Deal value ($B)	**$24.74**	**$31.04**	**$27.54**	**$61.69**	**$73.64**	**$86.55**	**$193.91**
QoQ change	1.0%	25.5%	-11.3%	124.0%	19.4%	N/A	123.8%
Share of total VC	29.3%	33.6%	32.2%	50.0%	51.5%	25.6%	43.7%
Exit count	**134**	**127**	**120**	**154**	**146**	**484**	**547**
Public listings	12	15	11	24	11	55	61
Acquisitions	96	96	93	109	105	349	403
Buyouts	26	16	16	21	30	80	83

Source: PitchBook • Geography: Global • As of March 31, 2025

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