PitchBook

EMERGING TECH RESEARCH

Information Security Report

VC trends and emerging opportunities

Q3 2023

REPORT PREVIEW
The full report is available through the PitchBook Platform.

Contents

We are adding PitchBook Exit Predictor probabilities to our Emerging Technology Research reports. PitchBook's proprietary VC Exit Predictor estimates the probability that a startup, or VC-backed company, will successfully IPO, be acquired, or merge. The tool is available exclusively to PitchBook subscribers.

Institutional Research Group

Analysis

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For previous updates as well as our complete information security research, please see the designated analyst workspace on the PitchBook Platform.

Information security landscape

Threat surfaces

1. Cloud-based web applications & services
2. Corporate-owned endpoints
3. On-premise network
4. On-premise databases
5. On-premise data center servers
6. Employee-owned endpoints
7. Cloud-based databases
8. IoT devices/sensors
9. Industrial control systems

Product segments

- Network security
- Application security
- Data security
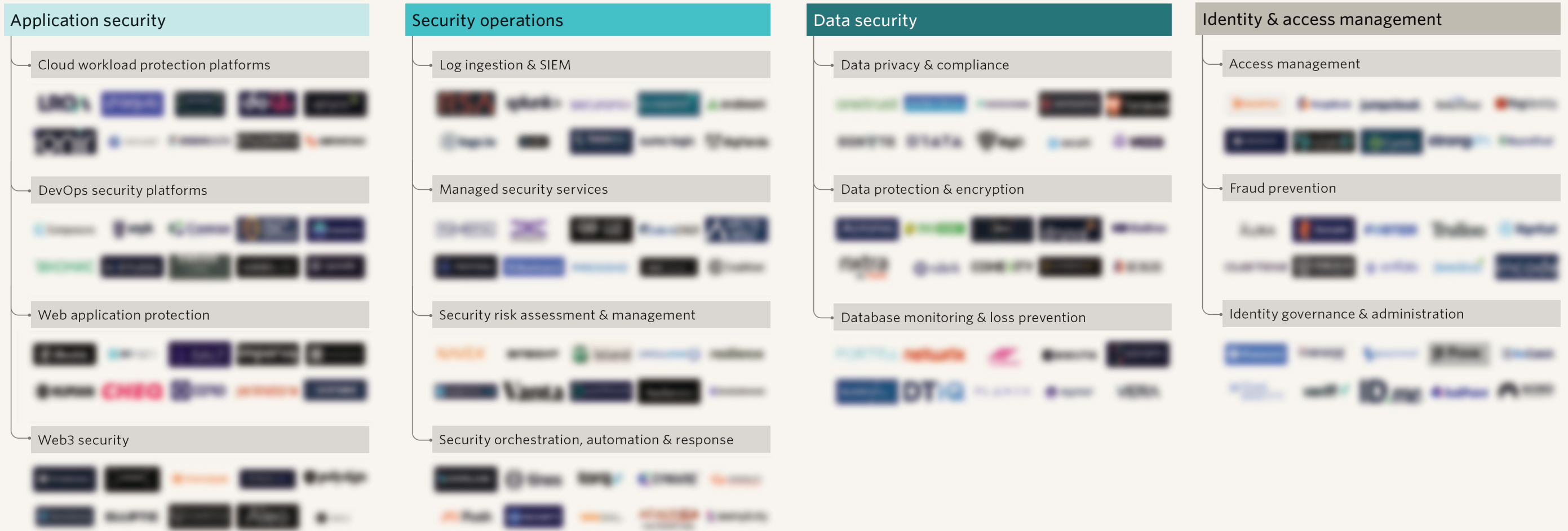- Identity & access management
- Endpoint security

Information security VC ecosystem market map

Click to view the interactive market map on the PitchBook Platform.

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.

Application security

Cloud workload protection platforms

DevOps security platforms

Web application protection

Web3 security

Security operations

Log ingestion & SIEM

Managed security services

Security risk assessment & management

Security orchestration, automation & response

Data security

Data privacy & compliance

Data protection & encryption

Database monitoring & loss prevention

Identity & access management

Access management

Fraud prevention

Identity governance & administration

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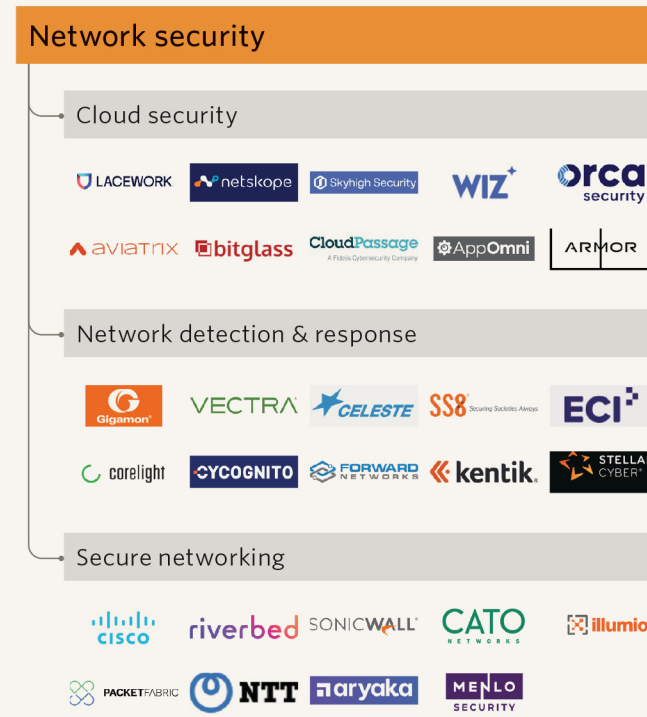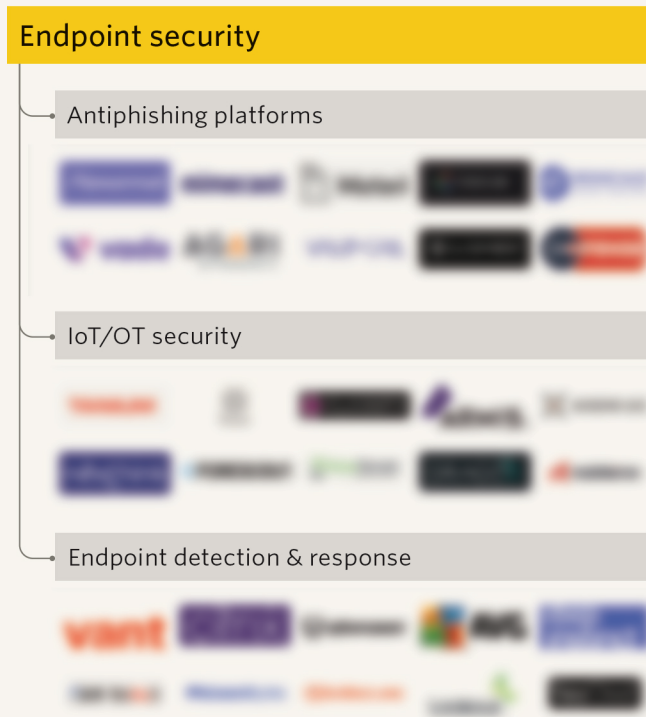
Endpoint security

Antiphishing platforms

IoT/OT security

Endpoint detection & response

Network security

Cloud security

LACEWORK · netskope · Skyhigh Security · WIZ · Orca security

aviatrix · bitglass · CloudPassage · AppOmni · ARMOR

Network detection & response

Gigamon · VECTRA · CELESTE · SS8 · ECI

corelight · CYCOGNITO · FORWARD NETWORKS · kentik · STELLAR CYBER

Secure networking

cisco · riverbed · SONICWALL · CATO NETWORKS · illumio

PACKETFABRIC · NTT · aryaka · MENLO SECURITY

VC activity

Infosec VC funding in North America and Europe has remained consistently low since the market downturn in Q3 2022, reaching $2.3 billion across 135 deals in Q3 2023—approximately the same level as the previous four quarters. We only tracked six megadeals in Q3 VC, which were evenly distributed across segments. AI model security stood out as a growth theme, with high valuation step-ups for pure-play AI security startups HiddenLayer and Protect AI. We tracked one megadeal across all segments except application security, demonstrating the continued breadth of opportunities in the market even as the depth of high-growth companies dwindles. Investors remain optimistic that deal volume will rebound, yet infosec startups face headwinds from a relative lack of interest in conventional software as a service (SaaS) relative to AI and buyer interests in vendor consolidation.

With only 13 exits, VC exit count did not pick in up in Q3, pushing investor optimism for deals further into the year. We see little evidence of changed behavior regarding low price tolerance for incumbents. Only three exits disclosed their deal values, including Perimeter 81's acquisition with a 51% mark-down from its prior private valuation. Among infosec leaders, Cisco continued an M&A spree with acquisitions of three infosec startups in addition to an announced acquisition of security operations leader Splunk. Cisco acquired startups across segments such as endpoint security (Armorblox), network security (CodeBGP), and identity & access management (Oort), with Splunk offering a data enrichment layer above them all. Announcements suggest that Palo Alto Networks and CrowdStrike will make major purchases for startups that have been covered in our research including secure browser startup Talon, data security innovator Dig Security, and cloud-native application protection startup Bionic—but these deals have yet to close.

Infosec VC deal activity
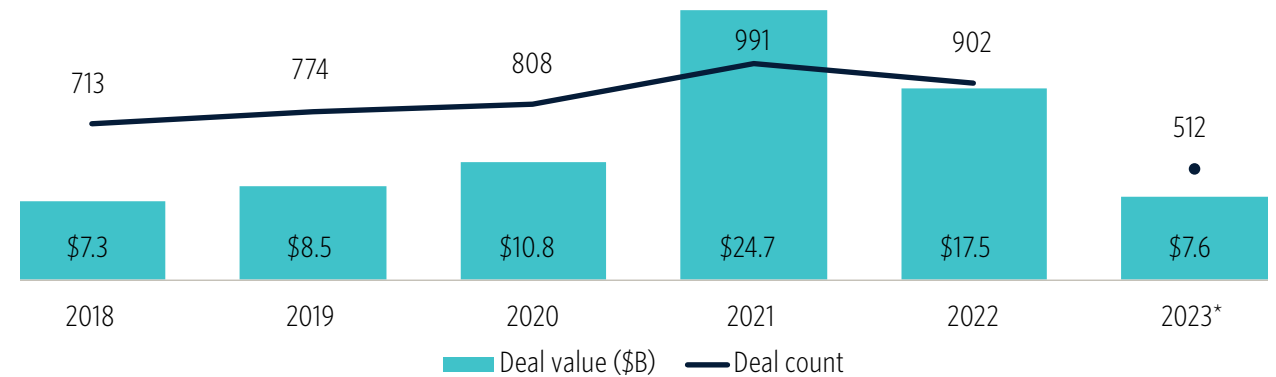
Source: PitchBook • Geography: North America and Europe • *As of September 30, 2023

Infosec VC exit value ($B) by type
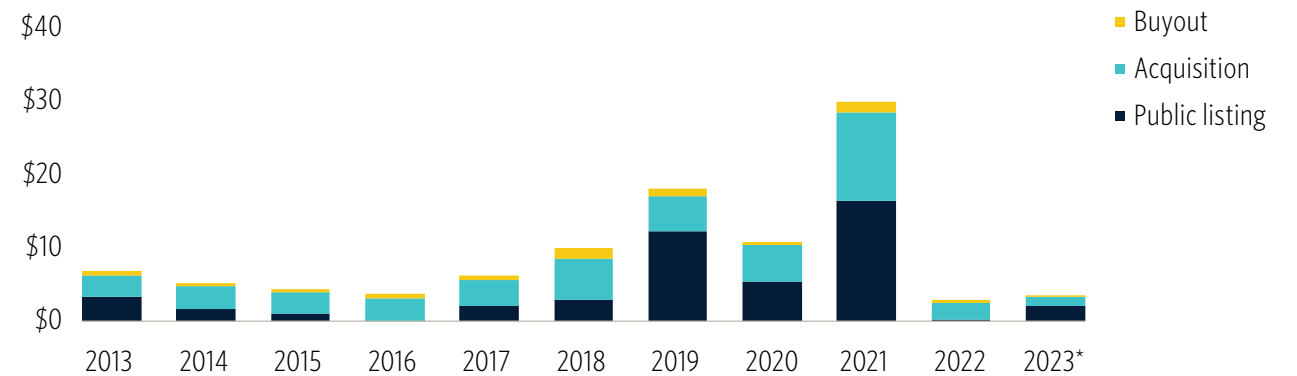
Source: PitchBook • Geography: North America and Europe • *As of September 30, 2023

Key recent infosec early-stage VC deals in Q3 2023*

Company	Close date (2023)	Deal value ($M)	Category	Lead investor(s)	Valuation step-up (post to pre)
HiddenLayer	September 19	$50.0	AI protection	M12, Moore Strategic Ventures	9.0x
Endor Labs	August 3	$48.0	DevOps security platforms	Coatue Management, Dell Technologies Capital, Lightspeed Venture Partners, S32	1.2x
Grip Security	August 22	$41.0	Identity governance & administration	Third Point Ventures	N/A
Protect AI	July 26	$35.0	Web application protection	ERA	N/A
Lumu Technologies	September 27	$30.0	Network detection & response	BIP Ventures, Forgepoint Capital	1.7x
Savvy	July 11	$30.0	Web application protection	Canaan Partners	2.8x
ProjectDiscovery	August 17	$27.0	Network detection & response	CRV	N/A
Cyble	July 31	$24.0	Security risk assessment & management	Blackbird Ventures, King River Capital	N/A
Socket	August 1	$20.0	DevOps security platforms	Andreessen Horowitz	N/A
Zenity	September 12	$16.5	DevOps security platforms	Intel Capital	2.1x

Source: PitchBook • Geography: Global • *As of September 30, 2023

Top infosec companies by IPO probability*

Company	Opportunity score	Predicted exit type	IPO probability	M&A probability
Tanium	72	IPO	93%	5%
Coalition	72	IPO	93%	5%
Arctic Wolf	71	IPO	92%	6%
SandboxAQ	67	IPO	85%	10%
Netskope	69	IPO	84%	14%
Chainalysis	69	IPO	83%	15%
Rubrik	67	IPO	77%	21%
Acronis	66	IPO	75%	23%
Plume	65	IPO	70%	28%
Malwarebytes	52	IPO	66%	19%
Datavant	61	IPO	65%	30%

Source: PitchBook • Geography: Global • *As of June 30, 2023
Note: Probability data based on PitchBook VC Exit Predictor methodology.

Top strategic acquirers of infosec companies since 2018*

Investor	Deal count	Investor type
Palo Alto Networks	15	Corporation
Cisco Systems	14	Corporation
CISO Global	13	Corporation
Fortra	13	PE-backed company
Deloitte	11	Corporation
VMware	9	Corporation
New Charter Technologies	9	PE-backed company
CyberCX	9	PE-backed company
Evergreen Services Group	9	PE-backed company
Accenture	9	Corporation

Source: PitchBook • Geography: Global • *As of June 30, 2023

LACEWORK.

		Lead investor(s)
Founded 2013	**Last financing valuation** $8.3B	GV, Sutter Hill Ventures, Altimeter Capital Management, Liberty Global Ventures, Alumni Ventures Group, Tiger Global Management
Employees 1,174	**Last financing** Raised $1.3B in a Series D	

Total raised $1.9B	**August 2023** Leader in Frost & Sullivan's Frost Radar: Cloud Workload Protection Platform	**March 2023** Included in Forrester's Cloud Workload Security Solutions Vendor Landscape

Exit Predictor

IPO probability 55%	**M&A probability** 43%	**No exit probability** 2%

Overview

Lacework is a cloud workload protection (CWP) vendor focused on behavior analysis of cloud resources, such as containers and serverless scripts. Lacework brings a "positive security" approach to cloud security in that it determines a baseline of approved behavior in complex cloud environments and then detects deviations from that baseline. The company has benefited from incubation within Sutter Hill Ventures, including from a partnership with Sutter Hill alumnus Snowflake, which contributes the company's graph database backend. Lacework's Series D was the highest VC deal value on record in infosec when it was raised. In 2021, the company achieved 270.0% revenue growth to $128.8 million, according to Gartner data.[5] Its investors believe the company can become an IT giant, surpassing legacy infosec vendors.

Lacework's product suite leverages ML to automate cloud threat detection. The company has received 20 US patents for its graph database technology, which applies to both users and cloud containers. Graph database technology determines correlations between disparate data points that can be used for predictive modeling. The patents specify the use of ML for anomaly detection, particularly random forest models—the same type of ML models used by CrowdStrike. We believe that ML approaches have been more advanced in endpoint detection than cloud security, giving an advantage to companies that train customized ML models on cloud data. In Q3 2023, the company deepened partnerships with Google Cloud and Snowflake, facilitating analysis of Lacework data in a Snowflake environment. We have not seen horizontal integration of the company's product into other areas of infosec.

5: "Market Share Analysis: Security Software, Worldwide, 2021," Gartner, September 2022.

Leadership

Executive leadership has consolidated under CEO Jay Parikh, with former co-CEO David Hatfield stepping down after nearly two years. Parikh held seniority given his previous post as vice president of engineering at Meta. Sales leadership also diminished with the departure of Chief Revenue Officer Andy Byron, suggesting that Lacework may not be replicating 2021's high revenue growth in 2022. The company has appointed a sales leader after a long search, hiring Chief Revenue Officer Kevin Kiley, who formerly was chief revenue officer at infosec unicorn OneTrust and led sales teams at VMware. This hire promises to improve revenue growth going forward.

Competitors

Lacework is defining the cloud-native application protection platform (CNAPP) segment to disrupt cloud security incumbents, such as McAfee and Netskope, along with threat detection vendors, such as CrowdStrike and SentinelOne. Its platform is intended to supplant the patchwork product suites that cloud security incumbents have developed with combinations of both cloud security posture management and CWP. Other companies aiming to provide complete CNAPP product suites include Palo Alto Networks, Rapid7, Sysdig, and Aqua Security. Wiz and Orca Security are emerging challengers. This market is currently fragmented in terms of mindshare and adoption, giving Lacework an opportunity to leverage its funding through marketing and cloud access security broker replacement campaigns to gain market share.

Outlook

Cloud security carries large problems but is not an independently large addressable market, which limited Lacework's revenue growth to only around 35.0% in 2022.[6] We believe the company's CWP market opportunity will reach only $4.5 billion in 2023, given its limited penetration into the broader endpoint security market. Large infosec companies have addressed larger spending segments in the market, such as endpoint security and identity & access management. The company's funding trajectory resembles the late-stage megadeals for Snowflake that Altimeter Capital Management and Sutter Hill Ventures also participated in, suggesting that the investors see similar potential for sustained high growth and a premium valuation multiple in public markets. A public listing may occur when technology share prices rebound, yet the company may not grow as large as infosec leaders such as Cloudflare and CrowdStrike.

6: "Worldwide Corporate Endpoint Security Market Shares, 2022: Pace of Growth Accelerated Through 2022," IDC, Michael Suby, June 2023.

Financing history

Series A	Series A1	Series B	Series C	Series D
May 21, 2015	**August 28, 2018**	**December 18, 2020**	**January 7, 2021**	**November 12, 2021**
Total raised: $5.0M	**Total raised:** $24.0M	**Total raised:** $42.6M	**Total raised:** $525.0M	**Total raised:** $1.3B
Pre-money valuation: $12.5M	**Pre-money valuation:** $40.5M	**Pre-money valuation:** $875.0M	**Pre-money valuation:** $475.0M	**Pre-money valuation:** $7.0B
Lead investor(s): Sutter Hill Ventures	**Lead investor(s):** Sutter Hill Ventures	**Lead investor(s):** Alumni Ventures, Liberty Global Ventures, Sutter Hill Ventures	**Lead investor(s):** Sutter Hill Ventures, Altimeter Capital Management	**Lead investor(s):** Sutter Hill Ventures, Alumni Ventures, Altimeter Capital Management, Tiger Global Management

About PitchBook Industry and Technology Research

Independent, objective, and timely market intel

As the private markets continue to grow in complexity and competition, it's essential for investors to understand the industries, sectors and companies driving the asset class.

Our Industry and Technology Research provides detailed analysis of nascent tech sectors so you can better navigate the changing markets you operate in—and pursue new opportunities with confidence.

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