



PEAKZONE

Cybersecurity REPORT | VENTURE TRENDS

Lorenz Hartung | Elias Maier | Stine-Luise Müller | Julian Baumgärtner

November, 2023 | © PEAKZONE GmbH

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Cybersecurity Venture Report


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About PEAKZONE

Our Venture Experts

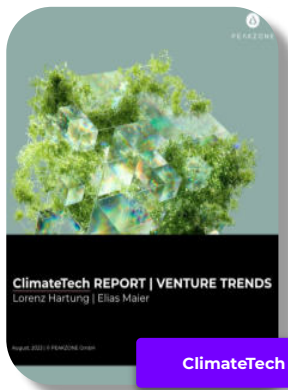


 **Lorenz Hartung**
CEO



 **Elias Maier**
Chief of Staff

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INDUSTRY OVERVIEW

Market Size & CAGR
Status Quo of Cybersecurity
Cybersecurity Clusters
Key Trends
Corporate Leaders

The global Cybersecurity market is experiencing a stable growth of 10% between 2016 - 2028



Cybersecurity generated a revenue of **\$150.00B in 2022** worldwide

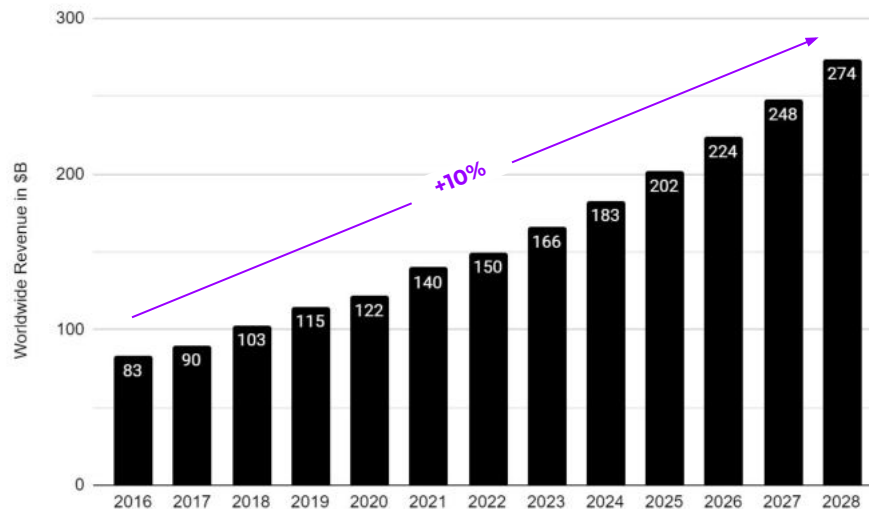


The global Cybersecurity market is expected to grow at a **CAGR of 10% (2016-2028)**.

The global cybersecurity market is experiencing significant growth due to an increasing sophistication of cyber attacks.

Global Cybersecurity Revenue

in \$B

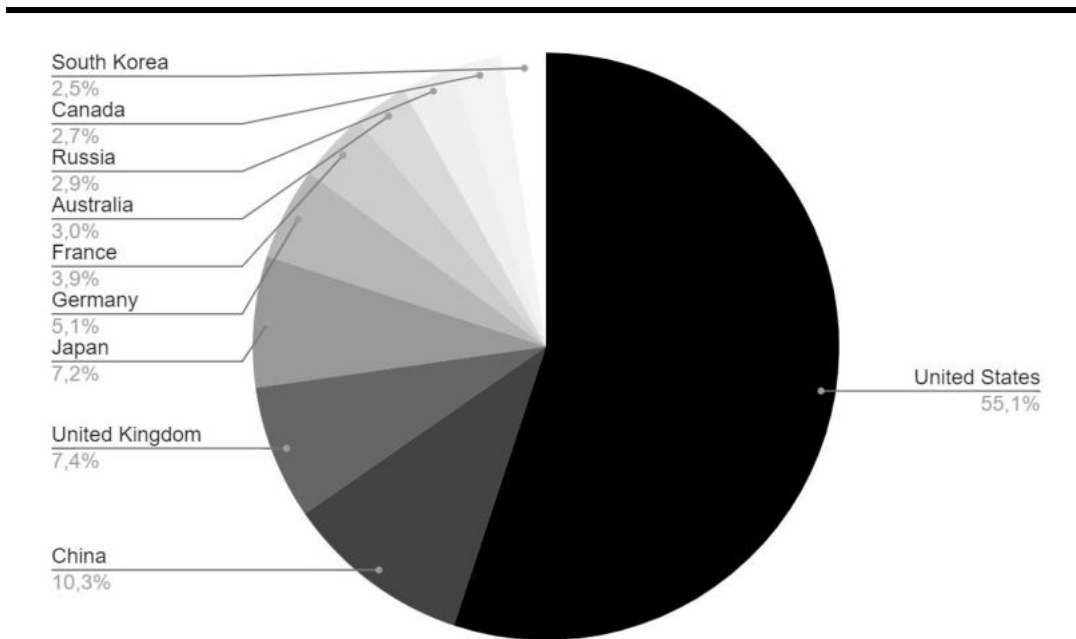


Cyber attacks and the cost of cybercrime worldwide have been rapidly increasing, therefore cybersecurity revenue will grow at a stable CAGR in the coming years.

In a global context, the U.S. Cybersecurity market leads in revenue generation, reaching \$65B in 2022.

- The Cybersecurity market in **China is poised for substantial growth**, with a **predicted revenue increase of 14.2%** between 2022 and 2028.
- The market is expected to experience a significant surge in the **USA, reaching \$113.8B by 2028**, reflecting a remarkable **CAGR of 9.8%**.
- This **underscores the dynamic and evolving landscape of cybersecurity**, emphasizing its critical role in both the Chinese and U.S. markets over the specified period.

Global Cybersecurity Revenue Share
in \$Billion

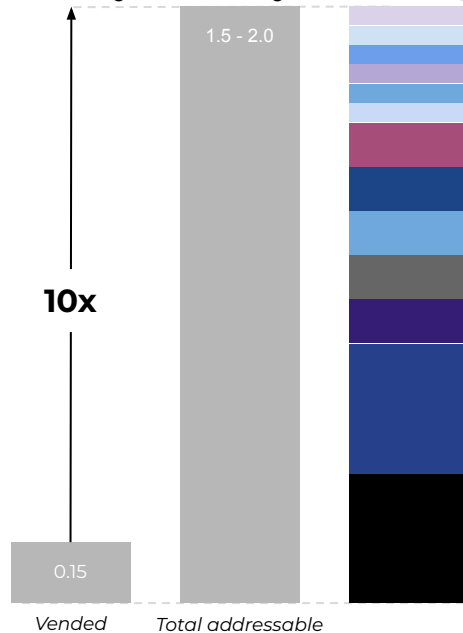















STATUS QUO: The shift to remote work has further accelerated the shift of data storage into the cloud

- The cybersecurity industry has **rapidly evolved to address the increasing volume of sensitive information stored online**, becoming a critical aspect of global information protection.
- The **COVID-19 pandemic prompted numerous organizations to experience heightened cyberattacks, driven by the security vulnerabilities associated with remote work** and the transition to virtualized IT environments, including cloud computing infrastructure, data, and networks. Consequently, there is a **notable shift towards embracing zero trust networks** as a proactive measure to **enhance cybersecurity in response to these evolving challenges**.
- **Developed countries lead in cybersecurity sophistication**, with the market expected to reach **US\$166.2 billion in 2023**, driven by factors like **IoT expansion and increased internet penetration**.
- The Cybersecurity market is segmented into **Security Services and Cyber Solution**. **Security Services, accounting for approximately 53% of revenues**, is the largest segment, with the **United States generating the highest revenue globally** (US\$72 billion), followed by China (US\$14 billion) and the United Kingdom (US\$10 billion).
- The **European Union is pursuing a comprehensive cybersecurity strategy**, including the NIS Directive, the **plans for NIS 2**, digital sovereignty, the EU Cybersecurity Competence Center, a single certification framework and international cooperation to **strengthen cybersecurity resilience**.

Status Quo: The global cybersecurity market offers a \$1.5 to \$2.0 Tn potential* - ten times the size of the vended market

Global cybersecurity market size, 2021, \$ trillion



| Segment | Total addressable market*, \$ billion | Current penetration*, % |
|--|---------------------------------------|-------------------------|
|  Data Protection | 50 - 100 | 30 - 35 |
|  Governance, Risk, and Compliance | 50 - 100 | 30 - 35 |
|  Email security and awareness | 50 - 100 | 10 - 15 |
|  Cloud Security | 50 - 100 | 1 - 5 |
|  Network Security | 50 - 100 | 15 - 20 |
|  Identity and access management | 50 - 100 | 20 - 25 |
|  Security consulting | 100 - 200 | 15 - 20 |
|  Web security | 100 - 200 | 5 - 10 |
|  IoT/OT ¹ | 100 - 200 | 1 - 5 |
|  Endpoint security | 100 - 200 | 5 - 10 |
|  Application security | 100 - 200 | 1 - 5 |
|  Security and operations management | 400 - 500 | 1 - 5 |
|  MSSP ² /Outsourcing | 400 - 500 | 5 - 10 |

*At 10% market penetration today the market has potential to reach \$1.5 Tn in the future. This does not imply the market will reach such a size anytime soon. Survey outcomes and market potentials reflect the opinions of 4,000 surveyed corporate executives of mid sized companies.

Seven Clusters define the Cybersecurity innovation landscape



1

Network Security

- Cloud Security
- Network Detection & Response
- Secure Networking



2

Endpoint Security

- Anti-Phishing Platforms
- Endpoint Detection & Response
- IoT/OT Security



3

Application Security

- Cloud Workload Protection Platforms
- DevOps Security Platforms
- Web Application Protection
- Web3 Security



4

Security Operations & MSSP

- Log Ingestion and SIEM
- Managed Security Services
- Security Risk Assessment & Management
- Security Orchestration, Automation & Response (SOAR)

Data Protection

- Data Privacy and Compliance
- Data Protection and Encryption
- Database Monitoring & Loss Prevention
- Backup & Recovery Management

5



Identity & Access Security

- Access Management
- Fraud Prevention
- Identity Governance & Administration (IGA)

6



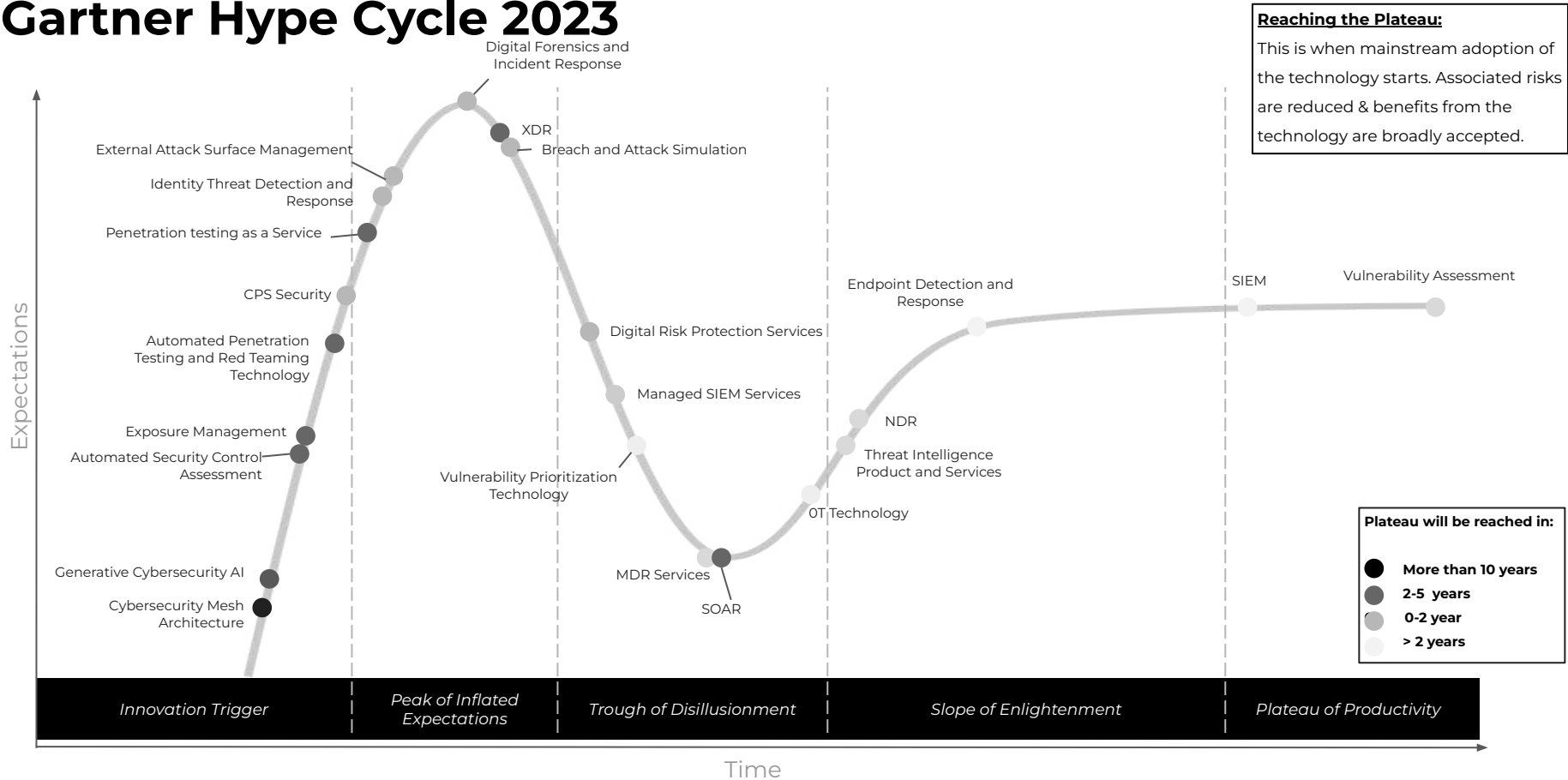
Quantum Cryptography

- Post Quantum Cryptography
- Quantum Key Distribution

7



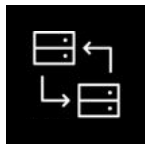
The current State of Innovation: Cybersecurity in the Gartner Hype Cycle 2023



Five Key Trends driving the Cybersecurity Industry in 2023

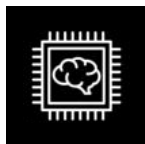
Hybrid Data Centers

Cloud computing's rise provides scalable infrastructure. Hybrid data centers, using orchestration, facilitate seamless movement of data and applications between on-premises and the cloud. This flexibility enables organizations to tailor environments to their security and scalability needs.



Use of AI in Cyberattacks

This technology significantly impacts cybersecurity on both offensive and defensive fronts. In offensive cybersecurity, generative AI tools are utilized to enhance cyberattacks, such as creating convincing phishing emails and potentially aiding in the development of new attack strategies, resulting in an ongoing arms race between attackers and defenders.



Key Trends



CNAPP

Cloud-Native App Protection Platforms, streamline cloud application development and security according to Gartner. It consolidates capabilities to address specific cloud security challenges and simplify application monitoring in cloud environments.

Threat Exposure Management

Threat exposure management (TEM) is a proactive cybersecurity approach, assessing and prioritizing potential threats to develop targeted mitigation strategies. It ensures organizations stay ahead of evolving risks by regularly identifying and assessing threats, maintaining readiness against emerging attack vectors.



Hybrid Mesh Firewall

As corporate networks diversify, the challenge is ensuring consistent security. Hybrid mesh firewalls integrate various firewall types for flexible deployment, providing centralized management and security enforcement across the entire network.



Leading companies in the Cybersecurity industry



Palo Alto Networks **offers cybersecurity services**, including **firewalls, support, and subscription options like threat prevention and data loss prevention.**

The company also **strategically acquires leading cybersecurity firms** to augment its portfolio, **focusing on challenging areas for internal development** and often keeping the acquired company's leadership in place.

Startup Acquisitions:

Talon Cyber Security (\$625.00M, 11/2023)



Cisco integrates **intent-based technologies across networking, security, collaboration, applications, and cloud, offering switches, routers, firewalls, and SDN solutions** for network segmentation. Their growth strategy involves **targeted acquisitions aligned with market transitions**, emphasizing integration for success and drawing from their experience in achieving best practices.

Startup Acquisitions:

Lightspin (\$225.00M, 03/2023)



Fortinet provides **powerful network security solutions that protect your network, users, and data** from constantly evolving threats. Explore Fortinet **Next Generation Firewalls (NGFW) for effective, consolidated security with end-to-end network protection.**

Startup Acquisitions:

EnSilo (\$15.80M, 10/2019)
ShieldX (\$10.80M, 03/2022)

A GLANCE AT THE GERMAN CYBERSECURITY MARKET THROUGH THE EYES OF AN INDUSTRY EXPERT



Marian Rachow

CEO
Rohde & Schwarz Cybersecurity

About Rohde & Schwarz Cybersecurity:

RSCS is a foremost IT-Security company that provides protection against constantly evolving cyber threats to governmental and private sector clients with distinct security and certification requirements.

According to Marian Rachow, the **German cybersecurity market is divided into two parts**. A **prepared sector**, consisting of **industries and areas relevant to the protection of secrets**, and an **unprepared market**, which can be found particularly in **German SMEs and small municipalities**. The latter often do not have sufficient financial resources to defend themselves effectively against increasing cyber attacks.

The **proximity of cyber attacks** has become **more noticeable in recent years**, and their **impact affects even small communities** that often **cannot afford the expensive repair services**. **Two trends are emerging in the cyber security industry:**

1. In the **prepared market**, companies with increasing security requirements are **looking for deeper, almost invisible solutions which don't harm the workflow**. The trend towards **high-security technologies** is at the **forefront** here, **willing to pay for it**.
2. On the other hand, **unprepared companies and municipalities** are more **open to cost-effective solutions** that can better meet their needs. A major trend here is towards **cloud solutions**. The use of **cloud services** is seen as a **cost-effective alternative to traditional servers**.

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CEO
Rohde & Schwarz Cybersecurity

**About Rohde & Schwarz
Cybersecurity:**

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Cooperation in cybersecurity is hampered by **national security interests** and fragmentation. Many **German SMEs and smaller municipalities** are **inadequately prepared for cyber threats** due to scarce financial resources and a lack of expertise. Particular **dangers arise from technologies** such as **artificial intelligence (AI)**, which can more easily **lead to attacks in an unprepared market**.

The **government is making efforts to provide training**, especially in connection with **new** bespoke **laws** such as **NIST 2.0**, but **cooperation** with companies is **not yet optimal**. In an **international comparison, Germany has some catching up to do**, while countries such as Sweden and Norway are considered more advanced and are increasingly focusing on security-oriented technologies.

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In the **startup scene**, the **focus on artificial intelligence (AI)** is evident at the moment, furthermore innovative approaches like the startup **Bugshell** are worth to be mentioned here. They are attempting to **centralize decentralized markets** and address **resource bottlenecks** - a commendable idea. **Creativity and agility** play a **crucial role** in this domain for developing **novel solutions**.

A **significant challenge** for **startups** in the cybersecurity industry lies in establishing direct collaborations with large authorities in the **prepared segment**, which can be inherently difficult. However, the **agility and innovation of startups** present **promising avenues for advancing cybersecurity** technologies and services.

The **untapped potential** of the **smaller, unprepared market** offers a **favorable opportunity for start-ups**, with a **large market potential** as they have the **right price level** and at the same time they can **establish** themselves in the **cybersecurity landscape**.

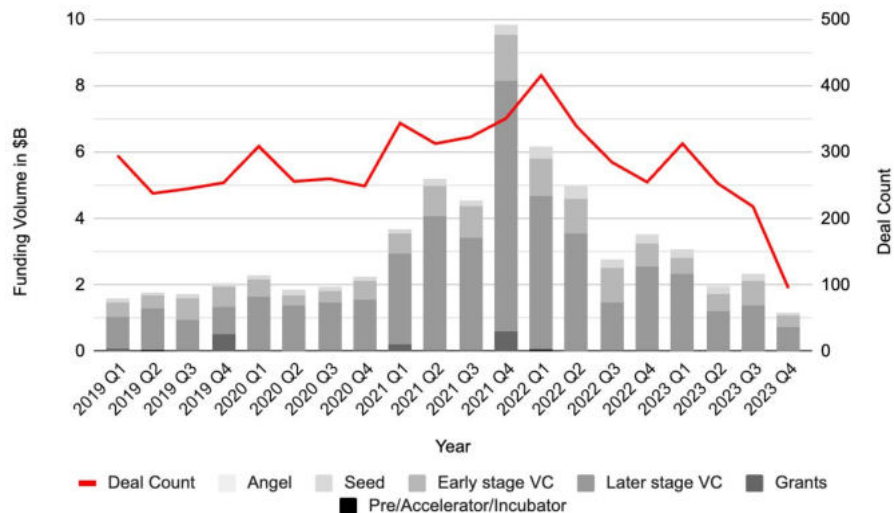
VENTURE ANALYSIS

Venture Activity
Funding Distribution
M&A Deals
Unicorn Landscape

Attack surfaces increased significantly during the pandemic, in turn a surge in cybersecurity funding can be observed

Quarterly funding in Cybersecurity

Total funding and number of rounds, Q1/19 - Q4/23



Key take-aways

- **Cybersecurity** experienced a **substantial rise** in funding throughout the **pandemic** and now a return to below average funding
- **Quarterly funding volume** peaked in **Q4/21** at **\$9.86B** invested, over 351 rounds
- **Volume** dropped significantly by **Q3/22** staying around **\$2.3B** in **quarterly funding**
- In **2023** the funding volume reached a total of **\$8.60B** over **879** rounds
- Over the **last 5 years** **\$64.86B** were invested into the sector

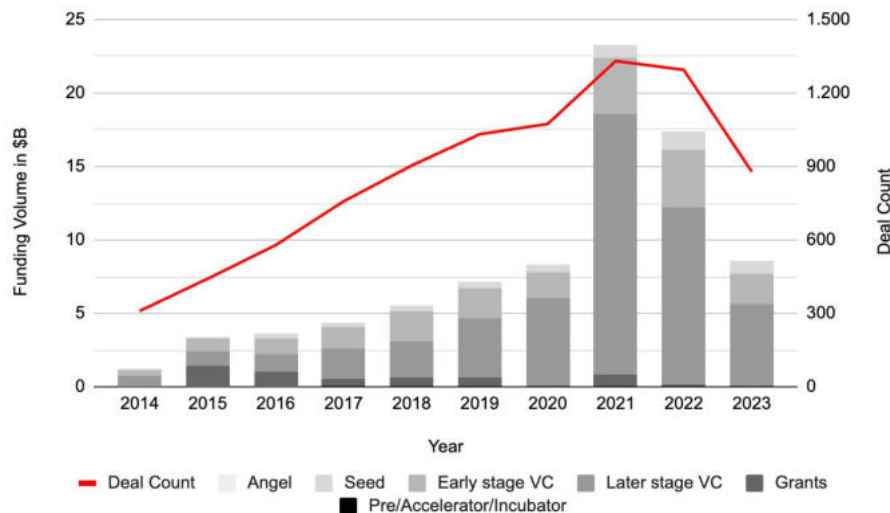
Largest Deals

| | | |
|---------------|-----------|---------|
| Lacework | \$1.30B | Q4/2021 |
| Securonix | \$1.17B | Q2/2022 |
| Pentera | \$813.20M | Q4/2021 |
| 1Password | \$650.00M | Q1/2022 |
| Orca Security | \$550.00M | Q1/2022 |

Funding Volume increased by 2.8x in 2021 and has now returned to pre-pandemic levels

Annual funding in Cybersecurity

Total funding and number of rounds, 2014 - 2023



Key take-aways

- **\$83.04B** were invested in the **last 10 years** in Cybersecurity startups
- **Investment Volume** peaked in **2021** at **\$23.29B** invested over **1.331 rounds**
- There are **3.892 VC-backed startups in the sector**, of which **29.5%** have raised Later Stage VC funding
- Especially **Cloud Security startups** within the **Network Security segment** have been the **focus of VC investments** in recent years.

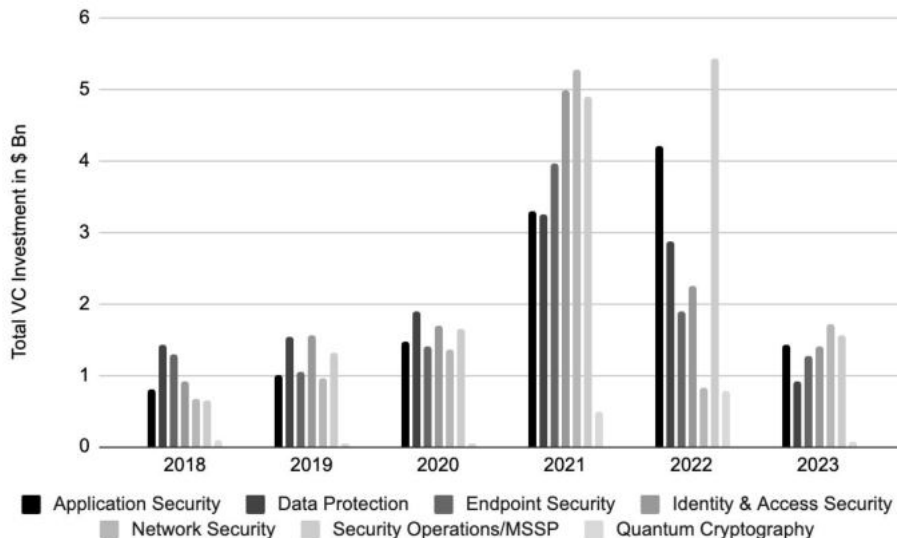
Investors

- **Corporates:** GV, Cisco, Intel, Microsoft, Salesforce, Dell, Samsung, Wayra, Citi
- **Venture Capitalists:** Accel, Insight Partners, Sequoia Capital, Lightspeed Venture Partners, Andreessen Horowitz
- **Government:** United States Department of Defense, Innovate UK, National Science Foundation, Enterprise Ireland

VC funding rounds had a peak in 2021 - More than 30 cybersecurity companies raised mega rounds over \$200 Mn

Annual funding in Cybersecurity

Total funding and number of rounds, by segment



Key take-aways

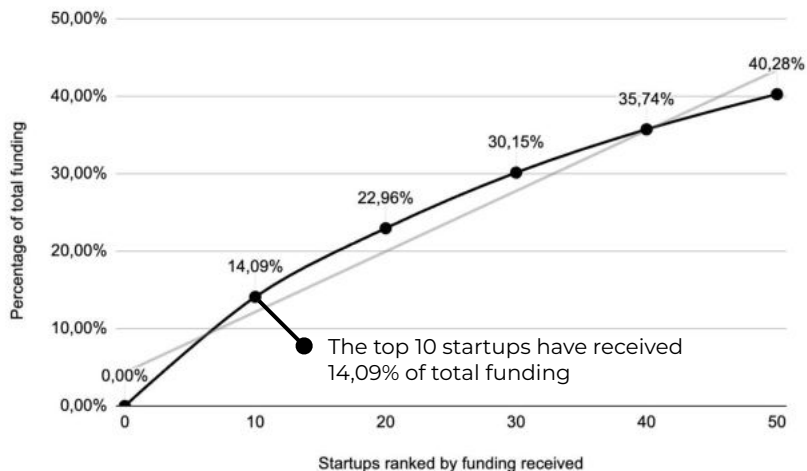
- While funding was **distributed fairly evenly** across segments **during 2019** and **2020**, in **2021 Network Security** and **Identity & Access Security** showed particularly **high interest** by investors due to the pandemic
- In **2022**, many **SMBs outsourced their cybersecurity** efforts to **managed security operations service providers** due to cost and scalability issues



Funding in the Cybersecurity sector is unevenly distributed with significant increases in funding in 2021

Cumulative funding

Percentage of total funding

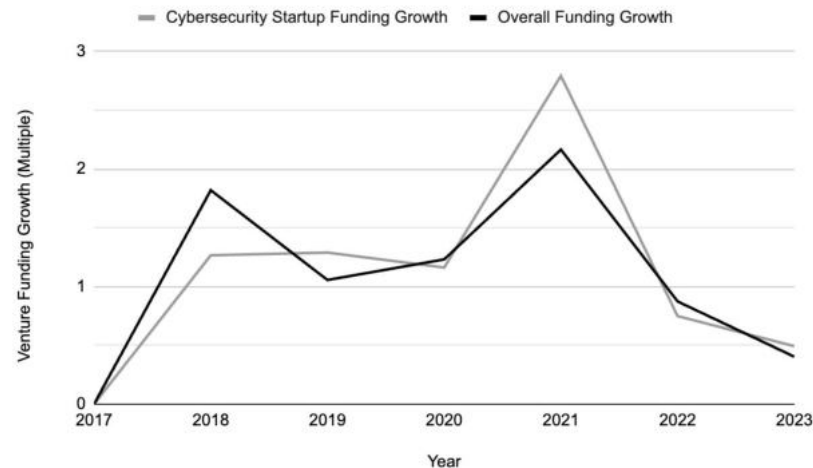


Take-away

Funding among **Cybersecurity startups** is highly concentrated among the **top 30 startups** out of the **3.800**.

Venture funding growth in Cybersecurity

Indexed growth, funding in 2017 indexed to 1x



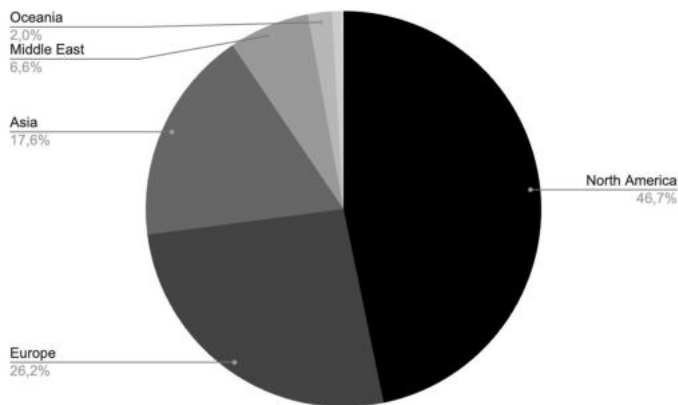
Take-away

Funding growth in Cybersecurity has seen a **significant increase of 2.8x** in **2021**, outpacing the overall market.

Startups are unevenly distributed globally with a majority based in US and UK

Global Startup Distribution

by number of startups per region

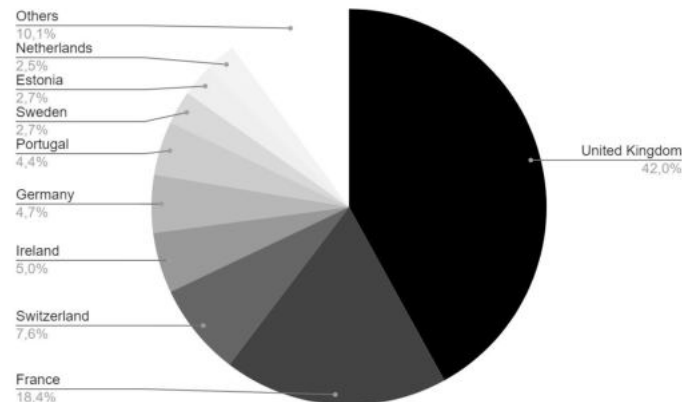


Take-away

- **Almost half** the global startups are **located in the US** not only because of the **easy access to big tech such as Amazon, Google or Apple**, but also due to **better access to venture capitalists** backing founders in this sector
- **Second largest** market is **Europe** as **ongoing EU regulation** is driving investments in the space and a need for **data sovereignty**
- **Israel** in the **Middle East** is a **major hub** for cybersecurity especially **cloud security** startups

European Startup Distribution

by number of startups per region



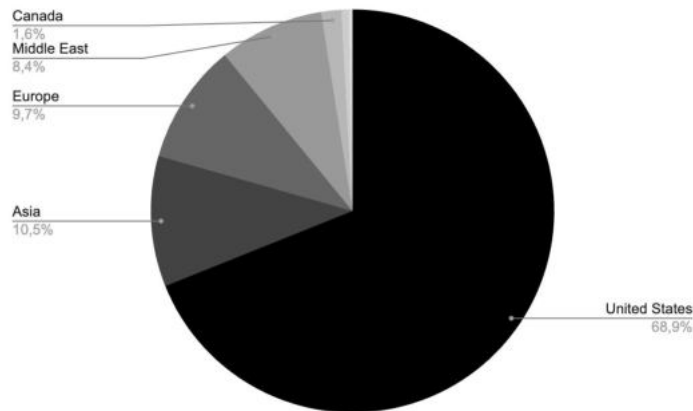
Take-away

- **Europe** accounts for **26% of the global market**; European ventures tend to raise less funding than their global peers.
- **The European Cyber Security Organisation & the European Commission** have called for action to fill the venture funding gap - Europe's cybersecurity investment platform has recently come **out of stealth mode**

Data Sovereignty and Security is a central topic in macro-politics with future warfare taking place in the cyberspace

Capital Invested by Global Region

by region in %

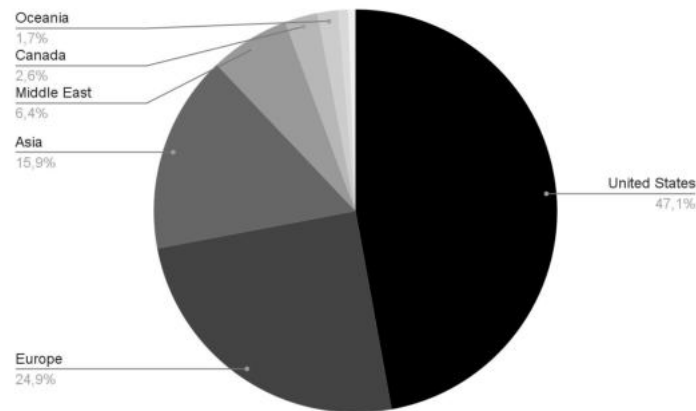


Take-away

- The **United States** has long been the **frontrunner of innovation** in the **cybersecurity space**, given that Microsoft, Google, Apple and Amazon are located there
- **China** is **pushing heavily into** a yet novel space around **quantum cryptography** and is currently **leading the research race**
- **Israel** has long been a **hub for cloud security** startups

Deal Count by Global Region





















by region in %



Take-away

- **Europe** has a **significantly high deal count** but yet sees **only 9.7% of VC capital invested** in the region
- The **US** receives **over 2/3 of the invested capital** while **only 47% of deals** are made here. **VCs in the US** bet **big** and companies **reach later stages** more **easily** compared to other regions.

Largest VC-backed Acquisitions in the last three years

| Company | Acquisition Value | Date | Acquirer | Segment |
|--|-------------------|----------------|--|------------------------------|
|  Auth0 | \$6.50B | May, 2021 |  okta | Identity Authentication |
|  MANDIANT | \$6.10B | October, 2020 |  Alphabet | Threat Intelligence |
|  VERAFIN | \$2.75B | February, 2021 |  Nasdaq | Cloud-based fraud detection |
|  SH-PE | \$1.02B | January, 2020 |  f5 | AI based Security technology |
|  EXPANSE | \$797.20M | December, 2020 |  paloalto NETWORKS | Internet Asset Protection |
|  Signal Sciences | \$759.39M | October, 2020 |  fastly | Web Application Security |
|  rdc Smarter Screening | \$700.00M | February, 2020 |  MOODY'S ANALYTICS | Risk intelligence Service |
|  XM CYBER | \$700.00M | November, 2022 |  SCHWARZ | Threat Simulation Platform |
|  Guardicore | \$610.44M | October, 2021 |  Akamai | Data Security Platform |
|  Attivo NETWORKS. | \$534.80M | May, 2022 |  SentinelOne | Data Security Platform |

Major investments and acquisitions in Cybersecurity

Drata, a network management software startup, **raised \$200 Mn** from ICONIQ Growth, GGV Capital & **Salesforce Ventures** to further finance R&D activity

Snyk raised **\$196 Mn** from QIA, **Salesforce Ventures** and Tiger Global for organic and inorganic growth as well as product innovation

Acquired for **\$4 Bn** by the top-tier PE fund **Kohlberg Kravis Roberts**, KKR will provide strategic and operational support for Barracuda's growth

PE Acquisition for \$6.9 Bn, led by **Thoma Bravo** with other participants such as Blackstone, growth plans of SailPoint are to be backed by Thoma Bravo's sector expertise and resources

Raised \$150 Mn from Craft Ventures, **Sequoia**, and Y Combinator to support customer acquisition, product R&D, and go-to-market efforts

Acquired by Proofpoint for \$95 Mn, adds proactive identity risk discovery and remediation as well as post-breach defense capability to Proofpoint's products

Network management software company, **acquired by SentinelOne** for **\$616.5 Mn** to enhance the product portfolio for both new and existing customers and strengthen the competitive position

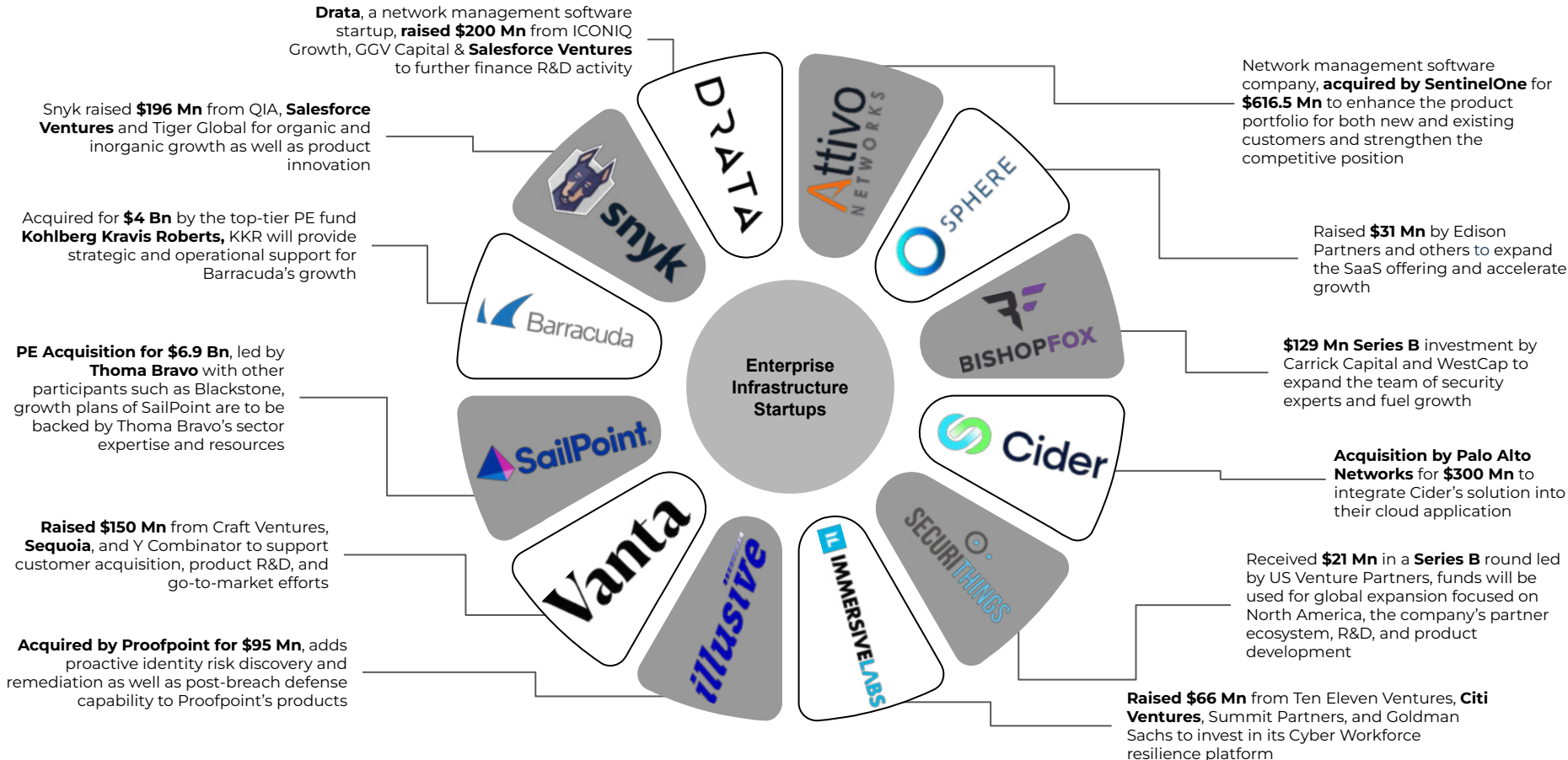
Raised **\$31 Mn** by Edison Partners and others to expand the SaaS offering and accelerate growth

\$129 Mn Series B investment by Carrick Capital and WestCap to expand the team of security experts and fuel growth

Acquisition by Palo Alto Networks for \$300 Mn to integrate Cider's solution into their cloud application

Received **\$21 Mn** in a **Series B** round led by US Venture Partners, funds will be used for global expansion focused on North America, the company's partner ecosystem, R&D, and product development

Raised \$66 Mn from Ten Eleven Ventures, **Citi Ventures**, Summit Partners, and Goldman Sachs to invest in its Cyber Workforce resilience platform

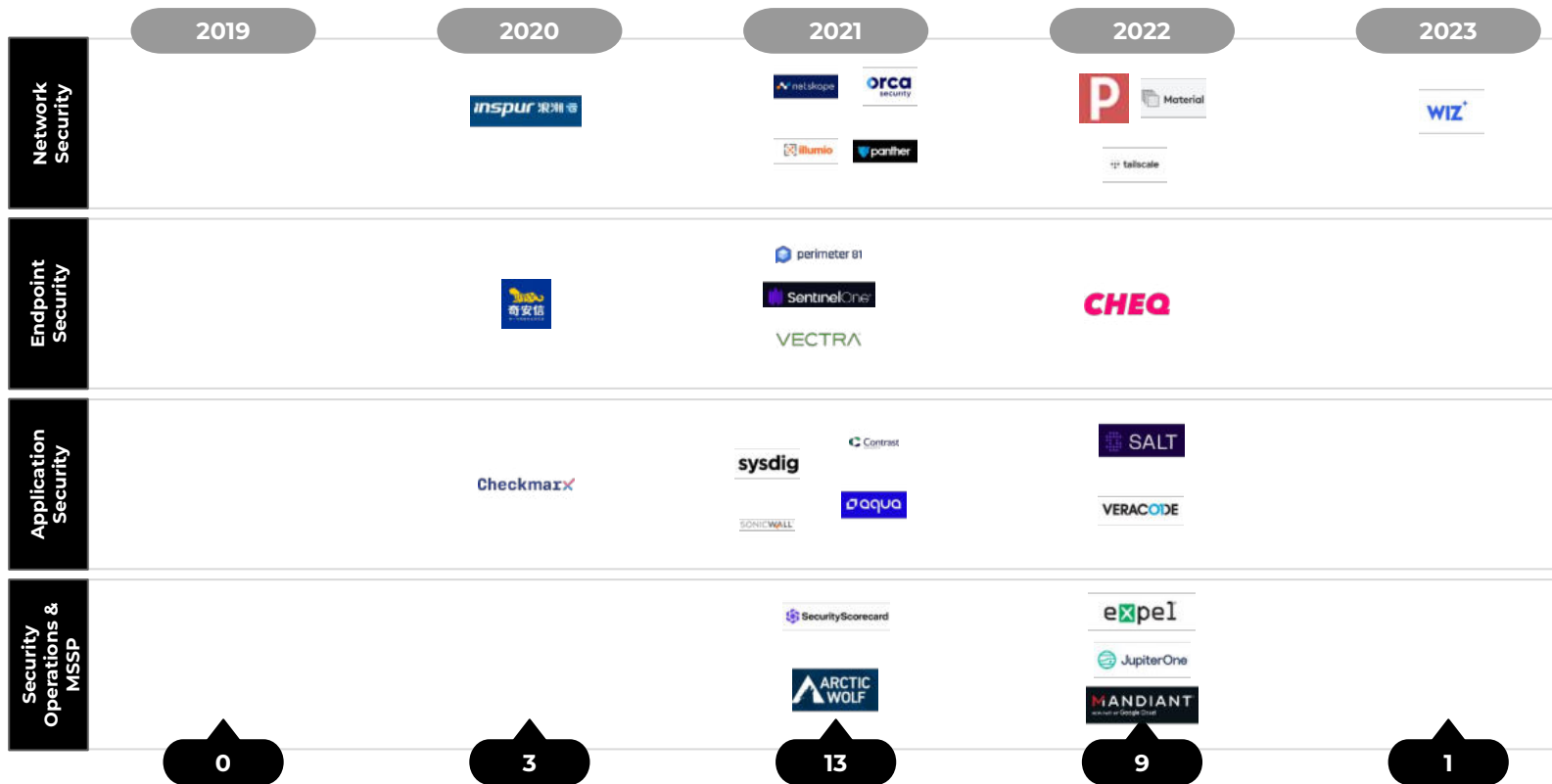


Top Corporate VC investments in HealthTech

| | | | |
|--|---|--|---|
|  |    |    |  |
|  |    |    |  |
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|  |    |   |  |
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|  |    |   |  |

Cybersecurity Unicorns in the last 5 years (Page 1)

Network Security & Security Operations were prominent trends



49 unicorns

representing \$148B in market value today

Cybersecurity Unicorns in the last 5 years (Page 2)

Data and Identity & Access security reached high valuations



49 unicorns

representing \$148B in market value today

1

3

10

5

4

PROMISING STARTUPS

Seven Clusters define the Cybersecurity innovation landscape



1

Network Security



Data Security

cyber insight



5



2

Endpoint Security



DOPE.SECURITY

Identity & Access Security



6



3

Application Security



code intelligence

Quantum Cryptography



7



4

Security Operations & MSSP



Network Security

Cloud Security
Network Detection & Response
Secure Networking



Cloud-based security offers large market opportunities while advanced threat detection remains unexploited

Cloud Security

Network Detection & Response

Secure Networking



Cloud Security
SASE Platform



Next Gen Security, Compliance &
Governance Tools



Network Intrusion
Detection Platform



Smart Cyber Security.

Threat Visualisation Dashboard
and NDR Platform



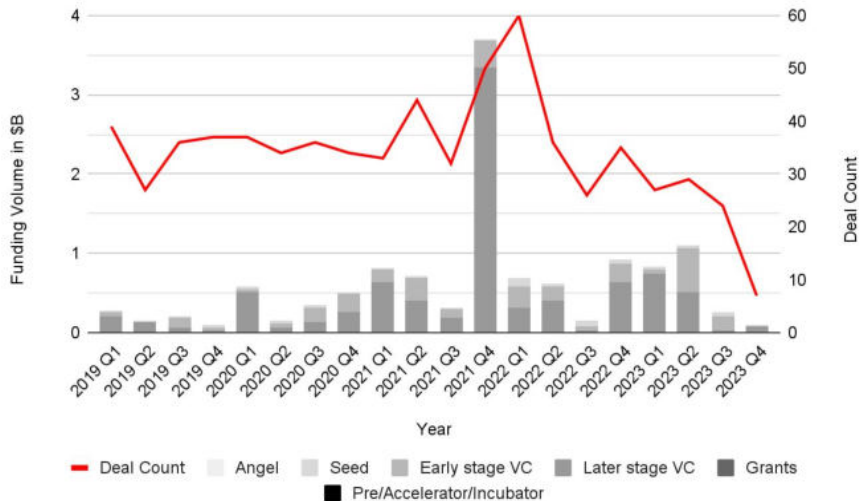
perimeter 81

Zero-Trust Access in a
unified platform



Secure inter-domain
routing

Building comprehensive SASE solutions is the hottest trend within Network Security



of Companies
total / funded

1.752 / 465

of Exits
IPOs / M&As / Buyouts

49 / 293 / 167

Out of Business

48

Investment Volume
2023

\$2.29B

Notable Corporates:

Notable Exits:

Notable Investors:

Major Investments in the Network Security segment



Business Description

The company's platform **automates every aspect of security**, including **configuration assessment, behavior monitoring**, anomaly, and **threat detection** as well as incident investigation, and it offers **continuous monitoring** of all cloud components.

Investors

GV, General Catalyst, Coatue Management, Alumni Ventures, Snowflake Ventures and others

Total Funding

\$1.86B
Series D



The company's platform offers a **SASE solution** that **understands the cloud** and **delivers data-centric security**, and gives **granular context**, via **patented technology** to enable **conditional access** and **user awareness** while enforcing **zero trust principles**.

Sequoia Capital, Citi Ventures, Dell Technologies Capital, Accel, Lightspeed Venture Partners and others

\$1.45B
Later Stage VC



The company's platform offers **continuous vulnerability** and **risk management** and uses **APIs** and **machine learning** to offer **real-time monitoring, analysis**, and **alerts on** users' behavioral and **cloud resources**.

Lightspeed Venture Partners, Redpoint Ventures, Deutsche Telekom, and others

\$1.06B
Later Stage VC



The company's platform offers **cloud visibility services** for **enterprise security** by offering an **overview of security risks** across **clouds, containers**, and **workloads** without the need for agents or sidecars.

Lightspeed Venture Partners, Index Ventures, Salesforce Ventures, Blackstone and others

\$801.00M
Series D



The company's platform **stops cloud attacks in real-time**, instantly **detecting changes in risk** with runtime insights and open-source Falco, it **correlates signals across cloud workloads**, identities, and services to **uncover hidden attack paths** and prioritize real risk.

Next47, In-Q-Tel, Insight Partners, Accel, Bain Capital Ventures, Mind the Bridge and others

\$739.55M
Series G



CloudFence

| | |
|----------------------|---|
| Search Field | Network Security, Network Management |
| Location | New York, USA |
| Year Founded | 2023 |
| Total Funding | \$0.02M (Accelerator) |
| Last Round | \$0.02M (10/2023) |
| Investor | Techstars |
| Website | cloud-fence.com |



Network Security

Business Overview

- **Platform for network management** that enhances **security and posture**. The solution deploys **comprehensive network security** and provides insights to **manage security in cloud infrastructure**, boosting overall security and visibility by integrating Network Security and Posture Management.

Use case & customers

- Cloud Fence **partnered with AWS, Google Cloud, and Azure**
- Allowing customers to deploy all necessary security services with one click and **ensure instant and comprehensive security, along their entire cloud infrastructure**.

Similar Companies

- **Open Cloud Factory** (2011, Seed (Undisclosed), EIT Digital and others)
- **ReliaQuest** (2007, Debt (\$1.87M), FTV Capital and others)

Business Overview

- **Network security platform** developer shields companies' critical information by proactively **identifying potential breach points** and automating manual audit checks.
- **Beacons attempt connections via Ethernet Broadcast**, if successful, the **platform alerts you through Syslog, Slack, or HTTP-API**.

Use case & customers

- Empowering IT security operators to **maintain continuous network security and segment isolation** in **alignment with mission-specific policies and regulatory requirements**.

Similar Companies

- **Hyas** (2015, Later Stage (\$25.78M), MicroVentures and others)
- **Surefiber Cyber** (2022, Early Stage VC (\$10.00M), Forgepoint Capital and others)

Sensorfu

| | |
|----------------------|---|
| Search Field | Cybersecurity Systems, Network Management |
| Location | Oulo, Finland |
| Year Founded | 2016 |
| Total Funding | \$0.71M (Later Stage) |
| Last Round | \$0.71M (11/2021) |
| Investor | European Union, Business Finland and others |
| Website | sensorfu.com |

Network Security



Endpoint Security

Anti-Phishing Platforms
Endpoint Detection & Response
IoT/OT Security

Startups offering Endpoint Security solutions

Anti-Phishing Platforms

Endpoint Detection & Response

IoT/OT Security



Anti-Phishing Platform based on Zero-Trust Principles



Enterprise E-mail Defense Software



Island

Secure Web browser solution



CYLANCE

AI-based platform for endpoint detection & response

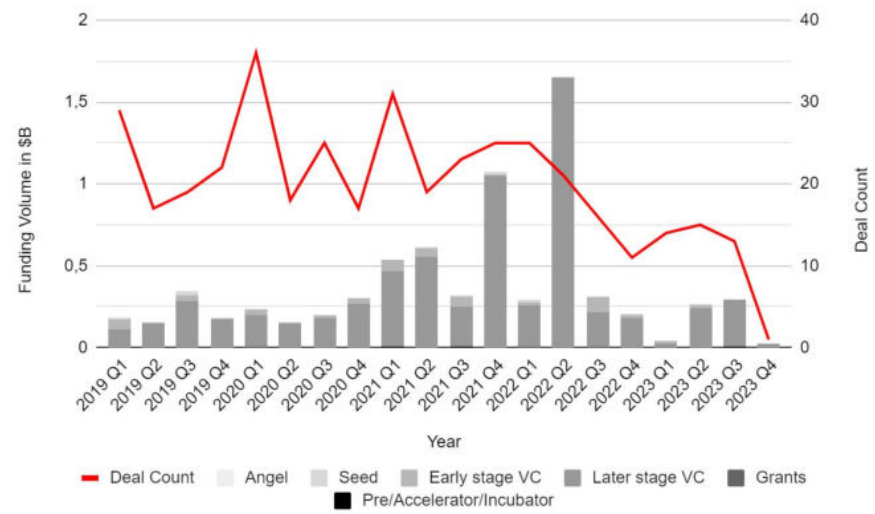


Security & compliance software analysis platform

ANGOKA

Hardware-based IoT security technology to protect critical machine-to-machine communication

Established next generation Endpoint Security players are crowding out the next wave of startups



of Companies total / funded

607 / 215

of Exits IPOs / M&As / Buyouts

22 / 110 / 52

Out of Business

23

Investment Volume 2023

\$617.41M

Notable Corporates:






Notable Exits:

\$6.5B
Okta

\$1.23B
IPO

Notable Investors:

Major Investments in the Endpoint Security segment

| | Business Description | Investors | Total Funding |
|---|---|--|------------------------------|
|  | Cloud-based platform using machine learning for real-time analysis of big data , helping clients automatically detect and prioritize insider threats, cyber threats, cloud attacks, and fraud. | Vista Equity Partners, Capital One Ventures, Snowflake Ventures and others | \$1.24B Series D |
|  | Cloud-based cybersecurity software using a custom in-memory graph and automated hunting engine to quickly detect and analyze endpoint behavioral patterns , enabling real-time identification and tracking of cyber attacks with minimal manual effort. | Liberty Strategic Capital, SoftBank Investment Advisers, Google Cloud Platform | \$815.00M Series F |
|  | Cybersecurity platform for automated production sites integrates with existing infrastructure, ensuring safety, reliability, and efficient operations by offering controls for visibility, risk management, and threat detection without requiring downtime or dedicated teams. | Rockwell Automation, SE Ventures and SoftBank Investment Advisers and others | \$640.00M Series E |
|  | Cybersecurity software for safeguarding critical infrastructure globally. The software provides vital visibility into ICS and OT networks , preemptively identifying and addressing threats , and is optimized for industries like utilities and manufacturing to establish resilient security. | WestCap, Koch Disruptive Technologies, BlackRock, Schweitzer Engineering Laboratories and others | \$432.20M Series D |
|  | Privacy-focused cloud security software protecting mobile phones from viruses, malware, and spyware. Offering data backup, restoration, and location tracking features, to secure personal information from serious cyber threats in today's mobile and flexible work environment. | Morgan Stanley Expansion Capital, QVIDTVM, DTCP, BlackRock Private Equity Partners and others | \$420.71M Series F |

Infiltron

| | |
|---------------|--|
| Search Field | IoT Security |
| Location | Warner Robins, USA |
| Year Founded | 2019 |
| Total Funding | \$0.12M (Accelerator) |
| Last Round | \$0.12M (08/2022) |
| Investor | Techstars, United States Department of Defense |
| Website | infiltron.net |

Business Overview

- **Cybersecurity platform enhancing biometric protection**, fraud detection, and malware prevention for **IoT devices**.
- Offers **three-factor authentication, customized services** for business needs, and real-time cybersecurity technology.

Use case & customers

- Providing **proactive IoT cybersecurity, utilizing advanced technologies like Ai, Blockchain, and Quantum** to **detect and prevent malicious attacks** across diverse systems.

Similar Companies

- **Black Dice** (2019, Seed (\$0.56M), Innovate UK, Development Bank of Wales)
- **Corenova** (2016, Early-Stage (\$0.12M), Mucker Capital, Starburst and others)

Business Overview

- Dope Security disrupts the **SWG market by performing security directly on the endpoint instead of routing traffic** through stopover datacenters
- Improves performance up to 4X, ensures that **decrypted data never leaves the device**, and **improves reliability by eliminating external dependencies**

Use case & customers

- Dope.swg is **fully customizable** - customers decide where users can go with integrated **anti-malware, cloud app controls, and user-based policies**
- They have a **patent in the US for their SWG architecture**

Similar Companies

- **Bloxx** (1999, Acquired (\$18.7M), Akamai Technologies)
- **Blue Coat Systems** (1996, Acquired (\$4.67B), Norton LifeLock)

Dope.Security

| | |
|---------------|---|
| Search Field | Secure Web Gateway |
| Location | Mountain View, USA |
| Year Founded | 2021 |
| Total Funding | \$23.65M (Early Stage VC) |
| Last Round | \$19.7M (03/2023) |
| Investor | Google Ventures, Preface Ventures, Boldstart Ventures |
| Website | dope.security |



Endpoint Security

Endpoint Security

DOPE.SECURITY

Application Security

Cloud Workload Protection Platforms

DevOps Security Platforms

Web Application Protection

Web3 Security

Momentum in the Application Security market is building up but the trajectory of startups is still uncertain

Cloud Workload Protection Platforms



Cloud-Native Protection Platform



Workload Protection based on Confidential Compute Technology

DevOps Security Platforms



Developer Security Platform



Application Security Testing Platform

Web Application Protection



API Protection Platform across Applications



Mobile Application Protection Platform

Web3 Security

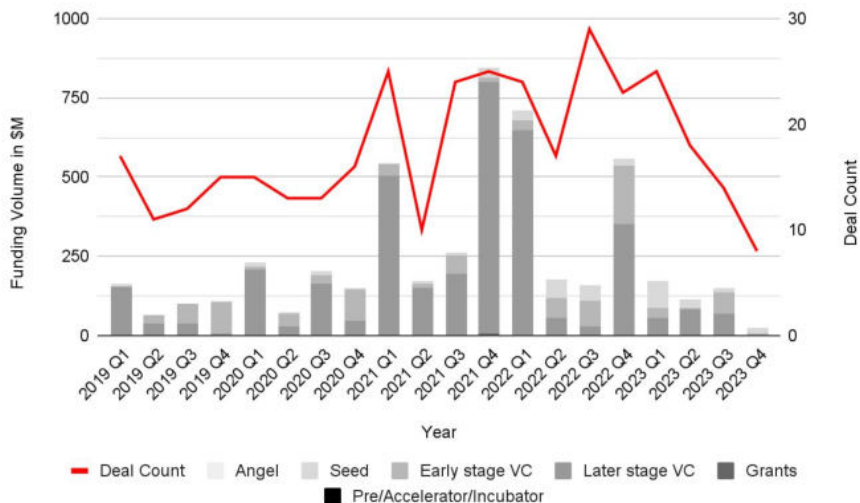


Cryptocurrency investigation and compliance software



Secure-enclave Distributed Ledger Technology

Momentum in Application Security is building but there will be many exits going forward as strategic expansion continues



of Companies
total / funded

1.207 / 226

of Exits
IPOs / M&As / Buyouts

26 / 148 / 67

out of Business

28

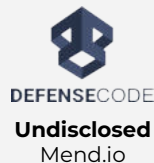
Investment Volume
2023

\$465.68M

Notable Corporates:



Notable Exits:








Notable Investors:





Major Investments in the Application Security segment

| | Business Description | Investors | Total Funding |
|---|--|--|---|
|  snyk | <p>The company's platform offers tools that help to find, fix, and monitor known threats in open-source dependencies, secure authoring, and consumption of open-source code.</p> | <p>GV, Accel, BlackRock, T. Rowe Price, Earlybird, Salesforce Ventures, Temasek and others</p> | <p>\$1.07B Series G</p> |
|  Contrast <small>SECURITY</small> | <p>The company's platform works continuously across popular development approaches and technologies to facilitate protection throughout the software lifecycle, enabling businesses to get an accurate assessment of an entire application portfolio.</p> | <p>Battery Ventures, AXA, M12, In-Q-Tel, General Catalyst, Warburg Pincus and others</p> | <p>\$272.00M Series E</p> |
|  SALT | <p>The company's patented solution uses machine learning and AI to automatically and continuously identify attackers and provide protection, learns the granular behavior and requires no configuration or customization to pinpoint and block attackers.</p> | <p>CrowdStrike, Sequoia Capital, Y Combinator, Tenaya Capital, DFJ Growth and others</p> | <p>\$270.74M Later Stage VC</p> |
|  aqua <small>run free</small> | <p>The company's platform provides full visibility and security automation across an application's entire lifecycle as well as prevents suspicious activities and attacks.</p> | <p>Insight Partners, Capital One Ventures, Lightspeed Venture Partners, M12 and others</p> | <p>\$266.13M Later Stage VC</p> |
|  imperva | <p>The company's platform specializes in offering a range of services including cloud-based security services consisting of web application firewall services, database protection, data masking, load balancing, attack analysis, behavior analytics and content delivery network.</p> | <p>Blackstone, KKR, Accel, Greylock, Venrock, Elliott Investment Management and others</p> | <p>\$263.25M Announced M&A</p> |



Edgeless Systems

Search Field Cloud Workload Protection, Confidential Computing

Location Bochum, Germany

Year Founded 2020

Total Funding \$7.00M (Seed)

Last Round \$5.00M (03/2023)

Investor SquareOne, Plug & Play, SIX FinTech Ventures, Possible Ventures and others

Website edgeless.systems

Business Overview

- Developer of **confidential computing technology** intended to **combine hardware and software** to make computing trustworthy
- Presents a solution to **encrypt any digital file** across **multiple clouds and workspaces**
- Data is **permanently encrypted**, instead of being en/decrypted constantly

Use case & customers

- **Regulated Industries** can **move data into the cloud** because it is kept permanently encrypted
- Enables companies to **accelerate the shift into the cloud** without security concerns
- Customers include **Bosch, Telekom and Intel**

Similar Companies

- **Enclave** (2021, Angel (Undisclosed), Business Angels)
- **Decentriq** (2019, Series A (\$23.81M), b2venture, Plug and Play, StartX, Atlantic Labs and others)

Business Overview

- **Automated application security testing platform** designed to **find** and help **fix vulnerabilities in software**
- The technology relies on **feedback-based fuzzing** (a **type of testing** in which software is repeatedly **confronted with random data**)
- The tech is **partially open source**

Use case & customers

- In the **automotive industry**, security **bugs are consequential**, especially if found in a later stage of development, or worse, after shipping - therefore, companies are **integrating automated testing procedures**
- Clients include **Bosch, Continental, & Secunet**

Similar Companies

- **Malwarebytes** (2004, PE (\$574.00M), Vector Capital, Fidelity, MicroVentures)
- **DuoSecurity** (2010, PE (\$102.00M), KG Investments, Cisco, Workday, ESO Fund)

Code Intelligence

Search Field Application Security Testing Platform, DevOps Security

Location Bonn, Germany

Year Founded 2017

Total Funding \$15.00M (Series A)

Last Round \$11.96M (05/2022)

Investor LBBW, HTGF, Verve Ventures, Occident Group, University of Bonn and others

Website code-intelligence.com



EDGELESS
SYSTEMS

Application
Security

Application
Security



code intelligence

Security Operations & MSSP

Log Ingestion & SIEM

Managed Security Services

Security Risk Assessment & Management

Security Orchestration, Automation & Response

Resource constraints, lack of budget, and missing expertise lead to enterprises outsourcing security operations

Log Ingestion and SIEM

Managed Security Services

Security Risk Assessment & Management

Security Orchestration, Automation & Response (SOAR)



Platform for Security log management and behavioral analytics



Managed security platform - SOC comprises MDR, Anti-Phishing, and Threat Hunting



Cloud-based security rating platform



SWIMLANE

Platform which automates all security operations



Alert correlation platform designed to centralize and correlate enterprise information technology alerts



Cloud-native cyber defense platform for Managed Detection & Response, Supply Chain Defense

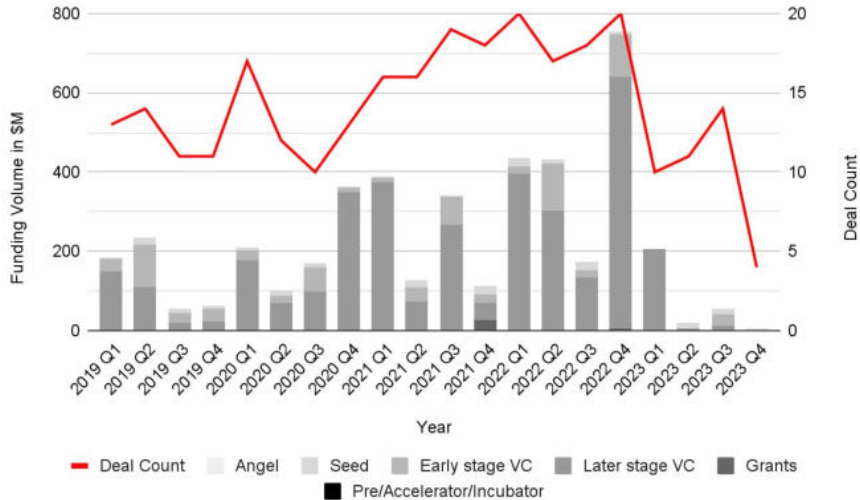


Cybersecurity platform designed to assess the risk of being attacked by an algorithm

EclecticIQ

Provider of threat intelligence, hunting and response technology and services

Startups can capitalize off the need for 24/7 Security services and integrated managed detection & response



of Companies
total / funded

1.375 / 197

of Exits
IPOs / M&As / Buyouts

40 / 236 / 137

Out of Business

22

Investment Volume
2023

\$285.09M

Notable Corporates:






Notable Exits:

splunk > **MANDIANT**

\$28.00B **\$6.10B**
Cisco Systems Alphabet

Notable Investors:

Major Investments in the Security Operations and MSSP segment

| | Business Description | Investors | Total Funding |
|---|---|---|----------------------------------|
|  | The company's platform offers continuous vulnerability and risk management and uses APIs and machine learning to offer real-time monitoring, analysis, and alerts on users' behavioral and cloud resources . | Lightspeed Venture Partners, Redpoint Ventures, Deutsche Telekom, and others | \$1.06B Later Stage VC |
|  | Developer of a cybersecurity platform that strengthens defense by detecting, responding to, and remediating breaches . The platform provides threat intelligence, managed security services, and professional insights for enhanced security posture. | Liberty Strategic Capital, Temasek, Samsung Next Ventures, Primark Capital and others | \$585.50M Series D |
|  | Cybersecurity asset management platform for businesses, offering unified visibility and control for connected devices , ensuring secure device adoption and usage at scale. | Accel, Accel, Bessemer Venture Partners, Lightspeed Venture Partners and others | \$395.09M Series E |
|  | Managed security platform providing content, tactics, techniques, and procedures for identifying issues and enhancing security maturity . Including maturity models, data-centric deployment models, delivery squads, and real-time collaboration. | Splunk Ventures, Vista Equity Partners, ABS Capital Partners and others | \$256.40M Series B |
|  | Security rating platform empowering organizations with collaborative security intelligence . The platform identifies vulnerabilities from a hacker's perspective , covering network, endpoints, DNS health, and IP reputation . | GV, Intel Capital, Fitch Ratings, Silverlake and others | \$293.42M Series E |

Bugshell

| | |
|----------------------|---|
| Search Field | Penetration Testing, Cyber Security Solutions |
| Location | Berlin, Germany |
| Year Founded | 2020 |
| Total Funding | Undisclosed (Early Stage VC) |
| Last Round | Undisclosed (11/2022) |
| Investor | HCS Beteiligungsgesellschaft |
| Website | bugshell.com |

Currently fundraising.
For more information contact
investments@peakzone.io



Security Operations

Business Overview

- **Cutting-edge penetration testing platform** that swiftly **detects vulnerabilities in real time, enhancing test efficiency and accessibility.**
- The Platform includes **phishing simulations, security vulnerability identification, and remediation**, offering a full range of cybersecurity services.

Use case & customers

- Bugshell **simplifies cybersecurity testing** for its customers by **matching expert skills** with their **testing needs**, orchestrating the **entire process via the platform**, enabling them to **streamline pentesting and phishing simulations.**

Similar Companies

- **HackerOne** (2012, Series E (\$159.40M), EQT Ventures, Benchmark and others)
- **Cobalt.io** (2013, Series B (\$44.15M), Toyota Ventures, Kima Ventures and others)

Business Overview

- **Scalable cloud-based security applications** tailored for highly distributed or regulated environments
- **Institution-wide risk assessment system that inventories, classifies, and evaluates regulatory compliance** across systems.

Use case & customers

- Partners are **AWS and Texas Department of Information Resources (DIR)**
- One of the use cases is **building a reliable risk and compliance process by automating the assessment lifecycle.**

Similar Companies

- **McAfee** (1987, Debt (\$1M), Kennedy Lewis Capital Co BDC)
- **ISMS.Online** (2005, Later Stage VC (\$2.59M, Cow Corner Investing)

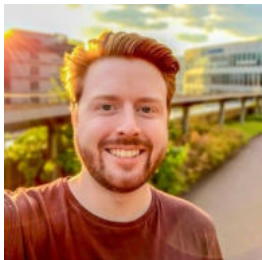
Security Operations



SaltyCloud

| | |
|----------------------|---|
| Search Field | Security Operations, Cybersecurity Risk Management |
| Location | Austin, USA |
| Year Founded | 2017 |
| Total Funding | \$0.02M (Accelerator) |
| Last Round | \$0.02M (06/2020) |
| Investor | Amazon Web Services, Techstars |
| Website | saltycloud.com |

A DEEP DIVE INTO BUGSHELL



Jakob Semmler

CEO
Bugshell

Important Milestones:

- Concept Phase in August 2021
- Platform Launch in April 2022
- Official Market Entry in 2023
- Focused on market penetration until the next funding round

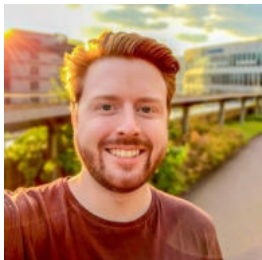
Bugshell's **products bridge the gap** between **automated tools and traditional testing approaches**, enhancing results and simplifying collaboration. The **platform includes Pen-Testing for IT infrastructure and Phishing Simulation for social engineering.**

Bugshell employs **phishing simulations in conjunction with pen-tests** in order to **evaluate the security** of a company **on a social and technical level.** Thereby **simulating real world attacks** realistically.

The **platform is characterized** by its **unique ability to create comprehensive hacking scenarios** for companies. Unlike standard solutions, bugshell offers **more effective insights** by utilizing the platform to **generate detailed, consistent, and responsive reports.**

"Compared to other platforms, we focus on EU-professionals with industry experience. Our solution is ideal for companies that are required to continuously assess their susceptibility to cyberattacks."

A DEEP DIVE INTO BUGSHELL



Jakob Semmler

CEO
Bugshell

Important Milestones:

- Concept Phase in August 2021
- Platform Launch in April 2022
- Official Market Entry in 2023
- Focused on market penetration until the next funding round

In Bugshell's perspective, the company sees substantial **market potential across diverse industries**, especially within the **German Medium-sized companies**. With approximately **30.000 companies in Germany legally required to take pen-testing each year**, there is a **sizeable market** that **spans critical sectors** such as **automotive** and **finance**.

The **strategic focus** lays **on midsize enterprises**, showcasing its ability to cater to **various industries** by **aligning freelancers' expertise with specific sectors**. Jakob Semmler highlights the challenges of introducing innovative solutions to the market and emphasizes Bugshell's **focus on companies** with **significant needs** and **faster implementation timelines**.

Bugshell distinguishes itself as the **exclusive European provider** in a market largely dominated by global platforms. This underscores Bugshell's commitment to a **European-centric approach, aiming to foster collaboration among European experts and businesses**. This **unique positioning** aligns with Bugshell's vision of **creating a secure digital environment**, making it a noteworthy player in the industry.

Data Security

Data Privacy & Compliance

Data Protection & Encryption

Database Monitoring & Loss Prevention

Backup & Recovery Management

As Big Data analytics & data-focused regulation increases, a growing need exists for data security platforms

Data Privacy and
Compliance

DRATA

Security compliance and
automation platform

 **THETALAKE**

Sensitive Data Detection Platform
for Online Video- and Audio Calls

Data Protection and
Encryption

 **baffle**

Secure Data Sharing
Platform for sharing Data
across multiple disparate
organizations


 **enclave**

Confidential containers for
zero-trust security

Database Monitoring
& Loss Prevention

 **IMMUTA™**

SaaS powered data security
platform

 **Open Raven**

Automated cloud data
discovery and protection

Backup & Recovery
Management

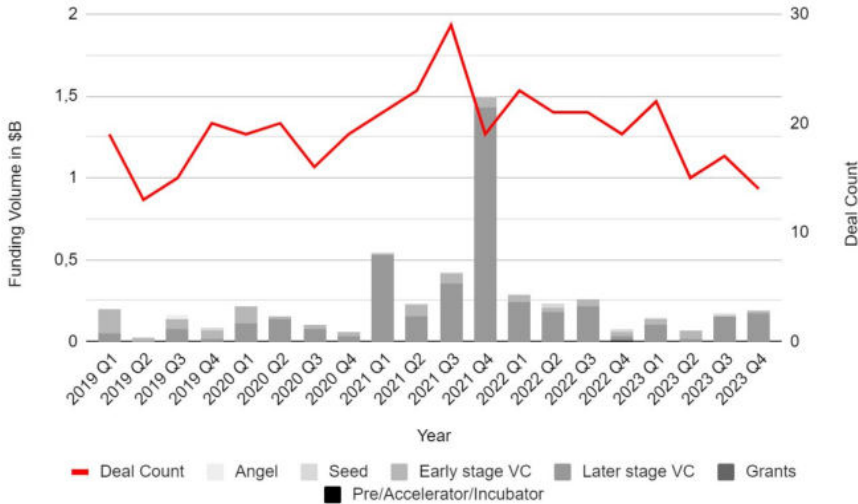
 **Bacula
Systems**

Decentralized backup for
heightened data security

DATOS 

System recovery in the cloud

VCs only bet small on emerging Data Protection solutions as only few startups reach significant scale



of Companies
total / funded

767 / 254

of Exits
IPOs / M&As / Buyouts

21 / 113 / 68

Out of Business

30

Investment Volume
2023

\$582.60M

Notable Corporates:

Notable Exits:

\$5.42B
Thales Group

\$3.6B
Thales Group

Notable Investors:

Major Investments in the Data Security segment



| | Business Description | Investors | Total Funding |
|--|---|---|-------------------------------|
| | The company's platform automates every aspect of security, including configuration assessment, behavior monitoring, anomaly, and threat detection as well as incident investigation , and it offers continuous monitoring of all cloud components . | GV, General Catalyst, Coatue Management, Alumni Ventures, Snowflake Ventures and others | \$1.86B Series D |
| | Developer of data security software for end-to-end protection during digital transformation , offering cloud-based services like web application firewall, database protection, data masking, and analytics . | Meritech Capital, Accel Partners, Greylock Partners, US Venture Partners and others | \$263.52M Series D |
| | A cyber risk company providing tailored insurance for mid-to-large enterprises , using advanced risk models for contract certainty . They prioritize real-time threat analysis and offer customized action plans for efficient cyber policy transactions and enhanced risk understanding . | Plug and Play Tech Center, Lightspeed Venture Partners, General Catalyst and others | \$221.20M Series D |
| | Data protection platform using advanced technology to help enterprises safeguard sensitive data , reduce breach risk, and ensure compliance with regulations like the EU General Data Protection Regulation . | Salesforce Ventures, Microsoft for StartUps, Bessemer Venture Partners and others | \$196.26M Series D1 |
| | Machine identity protection platform securing machine connections through orchestration of cryptographic keys and certificates for SSL/TLS, IoT, mobile, and SSH in hybrid and multi-cloud environments. | MicroVentures, Thomas Bravo | \$190.00M Series E |



resilience



Cyber insight

| | |
|----------------------|---|
| Search Field | Data Protection Platform, Cyber risk analysis |
| Location | Leipzig, Germany |
| Year Founded | 2022 |
| Total Funding | \$1.61M (Early Stage VC) |
| Last Round | \$1.61M (03/2023) |
| Investor | Technologiegründerfonds Sachsen |
| Website | cyber-insight.de |

Business Overview

- Developer of a **cybersecurity platform focused on data protection, risk analysis, and regulatory compliance**. The platform helps clients make **data-driven decisions, improve data security**, meet regulatory standards, and **reduce the risk of data breaches**.

Use case & customers

- Cyber-Insight lets customers **efficiently identify and minimize security risks with AI-driven assessments and automated measures**, ensuring cost-effective risk reduction.

Similar Companies

- **Vormetric** (2001, Acquired (\$411.37M), Thales)
- **Riela Cyber** (2018, Undisclosed)

Business Overview

- **All-in-ONE Disaster Recovery and Backup software** with **Physical, virtual, SaaS, and DevOps backup** (endpoints, Server, VMWare, Microsoft 365, and Git platforms)
- They advertise their **easy-to-use UX and high scalability for multi-site management**

Use case & customers

- **Partners** include **MSPs and Resellers**
- **100.000+ clients including Subway and Telekom**
- Their offering includes **different cloud storage options**

Similar Companies

- **Code42** (2001, US, >\$138 Mn (PE Growth), Accel, TriplePoint Capital and others)
- **Nasuni** (2008, US, \$261 Mn (PE Growth), , Goldman Sachs, Dell, Flybridge and others)

Xopero

| | |
|----------------------|---|
| Search Field | Backup & Recovery Management |
| Location | Gorzow Wielkopolski, PL |
| Year Founded | 2009 |
| Total Funding | >\$0.30M (Seed Round) |
| Last Round | \$0.3M (02/2019) |
| Investors | Black Pearls VC, Torro Investment and other |
| Website | xopero.com |

Identity & Access Security

Access Management
Fraud Prevention
Identity Governance & Administration

IAS software is a crucial tool for managing data and access across enterprise networks

Access Management



Identity threat detection and response (ITDR) platform for Active Directory and Azure AD



Service for securing cloud ecosystems and preventing supply chain threats

Fraud Prevention



Fraud prevention platform to help online retailers detect and eliminate transaction risks



Standalone risk and fraud-prevention platform for online retailers

Identity Governance & Administration (IGA)

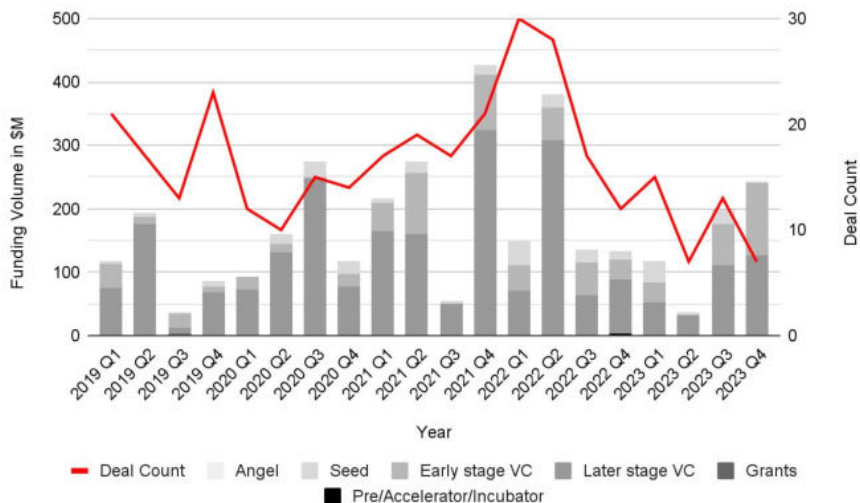


Video-based ID Verification



Biometric-based authentication Platform

The high level of consolidation in Identity & Access Security will lead to new emerging unicorns and market leaders



of Companies
total / funded

681 / 241

of Exits
IPOs / M&As / Buyouts

24 / 154 / 79

Out of Business

37

Investment Volume






\$597.84M

Notable Corporates:

Notable Exits:

Notable Investors:

Major Investments in the Identity & Access Security segment

| | Business Description | Investors | Total Funding |
|---|---|---|------------------------------------|
|  | Cloud identity company , providing products like Identity Management and Access Management . Revenue comes from term licenses, SaaS, and maintenance . | Thoma Bravo (Acquirer), KKR, Accenture, Accel, WestWave Capital, and others | \$547.88M Buyout |
|  | The company's platform offers server management security , including user management, administration activity monitoring, and configuration assessment , enabling IT teams to securely manage user identities and connect them to resources they need. | Alumni Ventures, NTT Docomo Ventures, Blackrock, General Atlantic, OurCrowd and others | \$417.92M Later Stage VC |
|  | The company's behavioral biometrics flags users' digital behavior that presents a potential risk , without compromising user privacy and flags increasingly sophisticated social engineering scams , helps global banks detect fraud and reduce friction. | Citi Ventures, Bain Capital, Barclays, HSBC, American Express Ventures, National Australian Bank and others | \$281.62M Later Stage VC |
|  | The company offers the availability of critical enterprise directory services at every step in the cyber kill chain and cuts recovery time and protects identities from cyberattacks, data breaches, and operational errors. | Insight Partners, KKR, Maverick Ventures, Ten Eleven Ventures and others | \$256.95M Series C |
|  | The company designs, develops , and markets identity governance software that helps organizations govern user access to critical systems and data . | Thoma Bravo (Acquirer), Lightspeed Venture Partners, Austin Ventures, Whoa Ventures, and others | \$226.85M Buyout |

Bleckwen

| | |
|----------------------|---|
| Search Field | Fraud Prevention, Fraud Detection |
| Location | Paris, France |
| Year Founded | 2019 |
| Total Funding | \$10.13M (Early Stage) |
| Last Round | \$10.13M (06/2019) |
| Investor | Bpifrance, TempoCap, Ring Capital, Engie |
| Website | bleckwen.ai |

Business Overview

- **AI-powered fraud detection platform** for banks, **optimizing irregularity detection, adapting to new fraud schemes**, and enhancing overall security. The platform **reduces customer friction and improves fraud detection**.

Use case & customers

- Customers include **BNP Paribas, PSA Finance**
- Delivers **personalized fraud detection solutions to customers**.

Similar Companies

- **Scopio Labs** (2014, Series C (\$102.53M), Aescuvest, Ilex Medical and others)
- **Markbotics** (2022, Seed (\$1.00M), Undisclosed)

Business Overview

- Astrix Security helps **cloud-first companies** defend against **supply chain attacks**
- It provides **holistic visibility into app-to-app connections** and automatically **detects over-privileged**, unnecessary and **malicious integrations** to **prevent** supply chain attacks, **data leaks** and **compliance violations**

Use case & customers

- Astrix helps **Figma's** (acquired by Adobe) security promise by **effectively monitoring risks** from **third-party SaaS integrations**
- Astrix covers **various integrations** from **Salesforce** and **Microsoft 365** to **GitHub** and **Snowflake** offering API Access Monitoring

Similar Companies

- **Persona** (2015, Series C (\$185.00M), Insight Partners, Index Ventures, and others)
- **Securden** (2018, Series A (\$11.7M), Accel, Tiger Global Management and others)

Astrix Security

| | |
|----------------------|--|
| Search Field | Access Management, Software Supply Chain Visibility |
| Location | Tel Aviv, Israel |
| Year Founded | 2021 |
| Total Funding | \$40.00M (Series A) |
| Last Round | \$25.00M (06/2023) |
| Investor | Bessemer Venture Partners, Venrock, CRV, F2 Venture Capital, Kmehin Ventures |
| Website | astrix.security |



Identity & Access Security



Identity & Access Security

Quantum Cryptography

Post-Quantum Cryptography
Quantum Key Distribution

Quantum computers will have the ability to break the cryptographic mechanisms we rely on today

Post Quantum Cryptography



Post-RSA cybersecurity modules



Post-quantum algorithms around secure messaging, VPNs, key management, blockchain, and IoT

Quantum Key Distribution



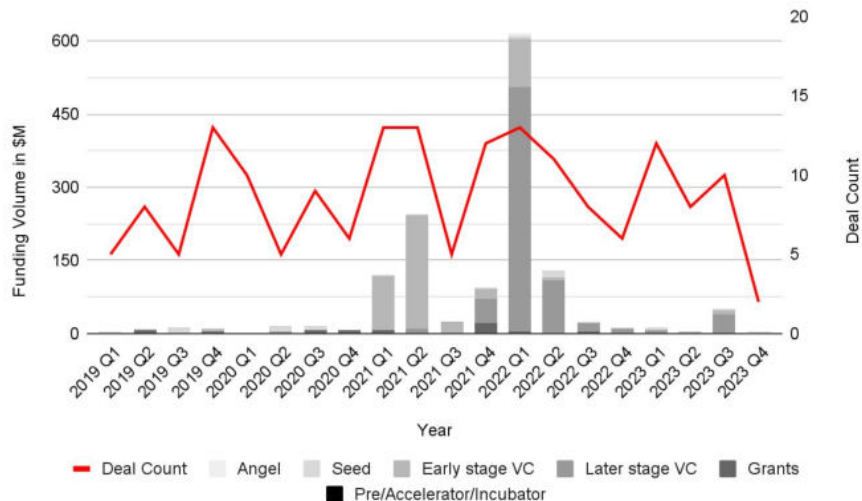
High-performance quantum-safe security solutions for the protection of data in transit - having commercialized QKD



Single-photon detectors that enable scaling of solutions in quantum computing



The Quantum Cryptography venture market is largely driven by government funding



of Companies
total / funded

142 / 78

of Exits
IPOs / M&As / Buyouts

6 / 7 / 0

Out of Business

1

Investment Volume
2023

\$73.35M

Notable Corporates:






Notable Exits:

TrueNorthQUANTUM
\$120.23M
United Royale Holdings

QuantumCTek
\$101.87M
IPO

Notable Investors:

Major Investments in the Quantum Cryptography segment

| | Business Description | Investors | Total Funding |
|---|---|--|-----------------------------------|
|  | SandboxAQ, an Alphabet spin-out , blends AI and quantum tech to address societal challenges, offering clients a competitive edge with solutions like crypto-agile security and quantum optimization before scalable quantum computers are widely available. | Spin-out from Alphabet, T. Rowe Price, Eric Schmidt, Amadeus Capital Partners and others | \$500.00M Series D |
|  | The company's system offers cryptographic proofs that are succinct, transparent, and post-quantum secure , providing blockchain users with a secure, fast, and seamless experience with improved privacy. | Coatue Management, Atomico, Alameda Research, Coinbase Ventures, and others | \$261.52M Series D |
|  | The company's algorithm addresses the fundamental questions of quantum physics and their manifestations in the world based on quantum computing to build quantum technology for a better future. | Lakestar, Investcorp, Anders Indset | \$85.90M Early Stage VC |
|  | The company's cybersecurity technologies are used for cryptographic purposes to centralize the management and control of data-security policy and harness quantum science properties. | Chevron Technology Ventures, In-Q-Tel, Australian Government, and others | \$50.67M Series B |
|  | The company's systems boost the efficiency of existing systems and protect both the model and the data without breaching confidentiality with quantum secure encryption , and equation-solving processes from the cloud. | Innovate UK, Horizon 2020, Verve Ventures, QVentures, DARPA and others | \$41.42M Series A |

ID Quantique

| | |
|----------------------|---|
| Search Field | Quantum Cryptography, QKD, PQC |
| Location | Geneva, Switzerland |
| Year Founded | 2001 |
| Total Funding | Undisclosed (Later Stage VC) |
| Last Round | Undisclosed (02/2019) |
| Investor | T.Capital, Paeonia Ventures, SK Telecom (Strategic Acquisition) |
| Website | idquantique.com |

Business Overview

- IDQ provides **high-performance quantum-safe security solutions** for the protection of data in transit
- Built a **comprehensive range of QKD solutions** that are effective up to 150 km
- They developed a **random number generator** and provide **photonic sensing solutions**

Use case & customers

- **Spin-out from** and strong research collaboration with the **University of Geneva**
- **SK Telecom** strategically **invested \$65.00M** into IDQ to become a leader in Quantum Communications
- **DocuSign** uses IDQ's products

Similar Companies

- **KETS Qunatum Security** (2016, Grant (\$20.8M), Speedinvest and others)
- **QEYnet** (2016, Grant (\$7.00M), Government of Canada)

Business Overview

- Pixel Photonics develops **highly scalable integrated-optical single-photon detectors** that **enable** scaling of **solutions in quantum computing, QKD**, imaging and more
- Within the **QSAMIS project**, funded by **BMBF**, aim to develop the first gigabit QKD system to **enable quantum-secure communication**

Use case & customers

- **Spin-out** from and strong research collaboration with the **University of Munster**
- Pixel Photonics will deliver **single-photon detectors for QuiX** in **DLR development project** to help commercialize quantum communication

Similar Companies

- **Quantum Technology Laboratories** (2017, Grant (\$0.25M), European Union)
- **KEEQuant** (2020, Undisclosed Funding)

Pixel Photonics

| | |
|----------------------|---|
| Search Field | Quantum Cryptography |
| Location | Münster, Germany |
| Year Founded | 2020 |
| Total Funding | \$1.60M (Grant) |
| Last Round | \$0.47M (05/2023) |
| Investor | High-Tech Gründerfonds, Bundesministerium für Bildung und Forschung, Quantonation |
| Website | pixelphotonics.com |



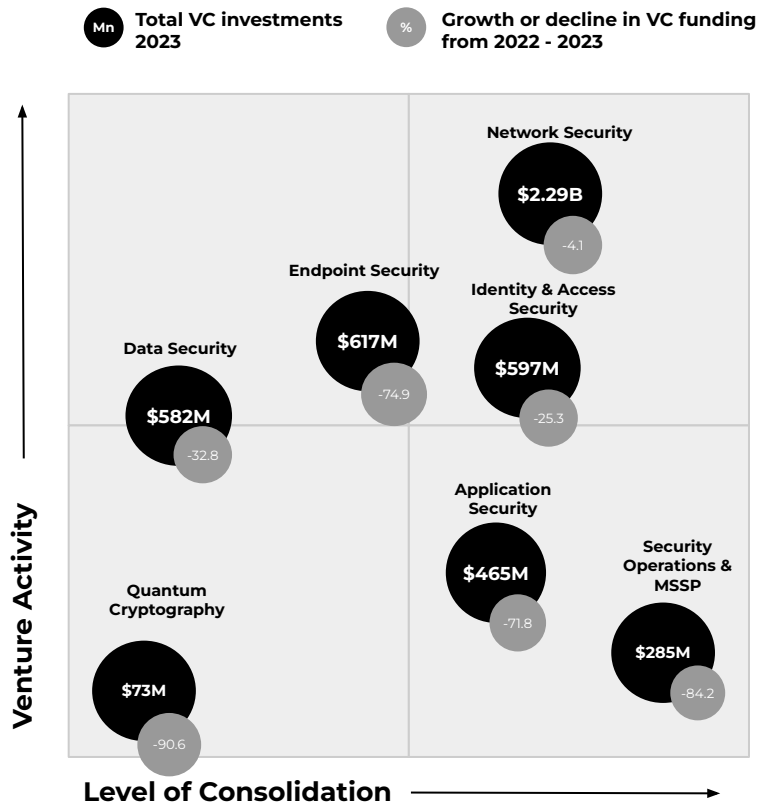
Quantum
Cryptography

Quantum
Cryptography

Pixel
Photonics

SUMMARY

Ranking the Cybersecurity segments in relation to each other



In the **dynamic landscape of cybersecurity funding** between 2022 and 2023, there were **notable shifts in several segments**. While the **network security** segment saw a **slight decline of 4.07%**, it continued to show robust consolidation trends with an acquisition-to-funding ratio of 63.01%. In contrast, **endpoint security suffered a significant decline of 74.88%**. The **Security Operations & MSSP segment faced an 84.15% decrease in funding**, possibly indicating challenges, while the acquired-to-funded startups ratio remained remarkable at 119.80%. **Data security remained competitive with a 32.79% decrease in funding and maintained a 44.49% acquisition to funding ratio**. Identity and access security saw a **25.25% decrease in funding**, but the acquisition-to-funding ratio remained high at 63.90%. In the **emerging area of quantum cryptography, despite a 90.63% decrease in funding, the acquisition-to-funding ratio was relatively low at 8.97%**, reflecting the **early stage of development and potential consolidation in this niche sector in the future**.



Network Security: In 2021, investments in network security soared to \$5.56 billion across 159 deals, driven by an increase in cloud security investments, particularly in the cloud-based Secure Access Service Edge (SASE) market. M&A activities surged as companies sought to enhance cloud security offerings in response to growing demand.



Endpoint Security: In 2021, endpoint security startups secured \$2.5 billion in funding, doubling the previous year's value, fueled by a surge in ransomware attacks on industrial firms. Despite a highly competitive environment, established players like CrowdStrike and SentinelOne dominate the market, prompting a shift toward the emerging XDR approach, which automates detection and response to breaches across IT environments.



Application Security: In 2021, application security deal value more almost tripled to \$1.8 billion, driven by Web3 and DevOps security segments. DevOps security, led by significant funding for Snyk revealed potential overvaluations with Snyk's 2022 down round. Challenges persist for startups in cloud workload and web application protection, as incumbent cloud providers like AWS may limit demand, while the overall market immaturity poses hurdles to scaling and adoption for application security solutions.



Security Operations & MSSP: In 2022, VC investment in security operations hit \$1.8 billion, with almost half directed to managed security services, marking a 108% increase from 2020. The SIEM and SOAR markets, though highly competitive, are witnessing rapid innovation, with incumbents like Sumo Logic disrupting SIEM, while Google's acquisition of Siemplify highlights market consolidation. Opportunities are also being created for startups like Expel, deepwatch, and Cygiant in the SOC-as-a-service space.

SUMMARY



Data Security: In 2021 and 2022, VC funding for data security reached \$2.7 billion and \$866 million, driven by a significant increase in data protection & encryption deals, notably for companies like Rubrik, Acronis, and OwnBackup. Startups disrupting the data backup market with advanced features like immutable backups, isolated recovery environments, and integrated malware scanning are gaining traction, challenging incumbent solutions. While homomorphic encryption is gaining interest, the mature Data Loss Prevention (DLP) market, dominated by established providers like Microsoft and Forcepoint, poses challenges for highly-funded VC-backed companies seeking market expansion.



Identity & Access Management: In 2021, Identity & Access security saw a surge in venture activity, reaching \$972 million, driven by significant funding in the Fraud Prevention segment. Passwordless authentication, particularly in identity governance & administration, is on the rise, with Beyond Identity and Secret Double Octopus leading the way, while startups like Incode are prioritizing customer convenience and security to stay competitive in the evolving digital identity verification space.



Quantum Cryptography: In 2022, venture funding in quantum cryptography startups reached \$782 million, highlighted by a \$500 million mega-round for Alphabet spin-off SandboxAQ, chosen by NIST for standardized PQC algorithms. Most quantum-safe encryption startups, still in early stages, rely on grant funding, with exceptions like ArQit using symmetric encryption. The evolving quantum encryption landscape faces short-term risks for investors, and the success of companies like SandboxAQ suggests increased acquisitions and continued investment before NIST standards are finalized.

SUMMARY

CONTACT DETAILS



Lorenz Hartung | CEO PEAKZONE GmbH

Sollner Str. 24h | 81479 Munich

e-mail: l.hartung@peakzone.io

phone: +49 176 4889 5000



Elias Maier | Chief of Staff PEAKZONE GmbH

Sollner Str. 24h | 81479 Munich

e-mail: e.maier@peakzone.io

phone: +49 176 4709 4134