

2023 Venture REPORT | VENTURE TRENDS

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2023 VENTURE REPORT

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2023 VENTURE ANALYSIS

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About PEAKZONE

Our Venture Experts



in Lorenz Hartung



in Elias Maier
Chief of Staff

About PEAKZONE

PEAKZONE is a **startup market intelligence platform**, devoted to **empowering investors and startups** with the critical information necessary for sound decision-making.

Our core mission involves the regular publication of in-depth **Venture Reports every two weeks**.

Our primary goal is to support startups in their **fundraising** efforts and assist investors and corporations in **discovering the right startups** and conduct thorough market analysis.







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INTRO

Global startups raised \$308.61 billion from VCs across 43.536 deals in 2023.

Venture Capital 2023 wrapped

In 2023, the **downward trend in seed and early-stage funding** persisted on a year-over-year basis, indicating that the venture markets have not fully opened up yet. In contrast, **late-stage funding gained positive momentum**, exhibiting an almost **10% increase year over year** and a significant 30% surge quarter over quarter. This surge in late-stage funding was **particularly notable in strategic sectors** such as **semiconductors**, **artificial intelligence**, **electric vehicles**, and **sustainability**.

September marked the entry of VC-backed companies into the public markets for the first time in 18 months. Two well-established venture-backed startups, Instacart and Klaviyo, went public, albeit at a notable discount compared to their last private valuations. The subsequent decline in their stock prices post-IPO points to heightened price sensitivity in the current economic market concerning new listings.

Al companies emerged as formidable players, securing over \$10 billion in Q3 2023, with significant contributions from companies like Anthropic and Databricks. The semiconductor sector also attracted substantial funding, with the majority of investments directed towards Chinese-based companies.

Late-stage funding took center stage in Q3, marking the second-highest quarter since the funding slowdown in Q3 2022. This increase was particularly pronounced in markets outside of North America, with a 50% year-over-year growth in late-stage funding in Asia and a doubling quarter over quarter in Europe, driven by large funding deals in energy and manufacturing.

Early-stage funding faced the **steepest decline**, down 38% year over year and 16% quarter over quarter. **Seed funding** also experienced a **downturn**, down 27% year over year.

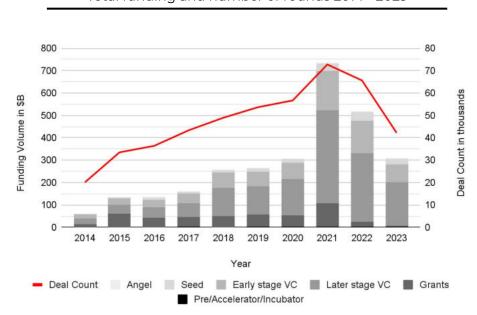
Despite substantial fundings in key sectors, the **global funding landscape saw a slowdown**, reflecting a **40% decline year over year**.

The State of VC

2021 marks a decade-defining year with unprecedented funding strength and overhyped valuations

Annual funding

Total funding and number of rounds 2014 - 2023



Key take-aways

- 2021 emerges as the strongest in the past decade, witnessing an impressive total capital investment of \$734.52B
- In 2023 we saw a **funding decline of 40%** from 2022 coming in **at \$308 billion**
- Particularly **early stage funding** saw the **largest decline** year-over-year.
- There have also only been \$3.4 billion invested via Grants so far this year - down 83% from last year

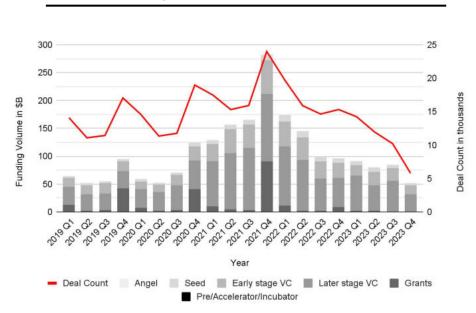
Investors

- **Corporates**: GV, Tencent Investments, Salesforce Ventures, Coinbase Ventures
- Venture Capitalists: Techstars, 500 Global, SOSV, Alumni Ventures, Enterprise Ireland
- **Government**: U.S. Department of Health and Human Services, U.S. Department of Agriculture, Innovate UK

We witnessed record-low funding in the latest quarter of 2023 with funding down 39% quarter-over-quarter

Quarterly funding

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



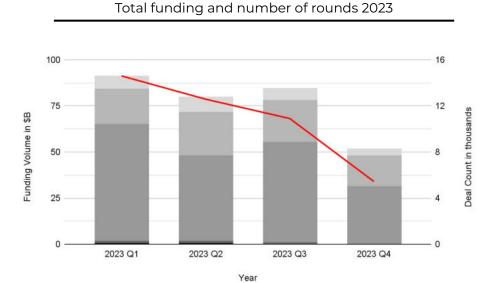
Key take-aways

- The strongest quarter in terms of invested capital was Q4 of 2021, which saw an impressive increase in investments across all deal types and a total investment of \$282.66B.
- Two of the largest deal in the last four years emerged in 2023, Q1 and Q2.
- WeWork, with one of the largest deals in the last four years, filed for Chapter 11 bankruptcy on November 6, 2023.

Largest Deals OpenAl \$10.00B Q1/2023 Stripe \$6.38B Q1/2023 VillageMD \$5.20B Q2/2022 WeWork \$5.00B Q1/2019 CGN Wind \$4.77B Q4/2021

Major Deals propel high funding peaks in 2023 Q1 and Q3 Generative Al is the sector of the year

Quarterly funding



Pre/Accelerator/Incubator

Later stage VC

Key take-aways

- \$308.61B were invested in 2023
- Q1 and Q3 were the strongest Quarters, with \$91.51B invested in Q1 and \$84.90B invested in O3.
- OpenAl accounted for the largest round this year, in Q1/2023, raising \$10.00B.
- Funding has increasingly been directed towards AI and ClimateTech startups
- Although the large market corrections, startups with strong fundamentals could still raise mega-rounds

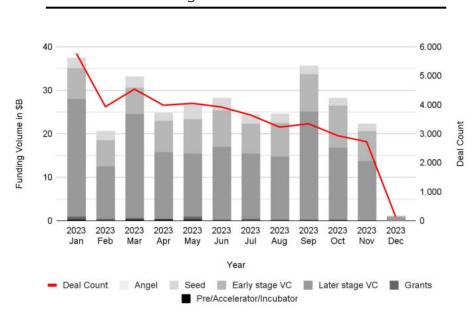
Largest	Deals

OpenAl	\$10.00B	Q1/2023
Stripe	\$6.87B	Q1/2023
Anthropic	\$4.00B	Q3/2023
SHEIN	\$2.00B	Q2/2023
Starlink Al	\$2.00B	Q4/2023

Powerful Start: January emerges as the pinnacle funding month in 2023

Monthly funding

Total funding and number of rounds 2023



Key take-aways

- The majority of investment rounds were concentrated in Later Stages
- January and September standing out as robust months, fueled by mega rounds, including a significant investment into OpenAl in January.
- February, the weakest month, constituted only 6.73% of the total investments in 2023.

Investors

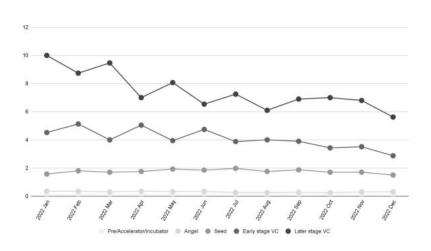
- Corporates: GV, Coinbase Ventures, Salesforce Ventures, Intel Capital, Sony Innovation Fund
- **Venture Capitalists:** 500 Global, SOSV, Alumni Ventures, Antler, Enterprise Ireland
- **Government**: U.S. Department of Health and Human Services, Innovate UK

Generative Al startup Mistral Al raised a record-breaking \$113M Seed round just 4 weeks after being founded to take on OpenAl.

Over the course of 2022 median deal sizes have fallen significantly only to rise again throughout 2023

Median Deal Size

by stage in \$M in 2022

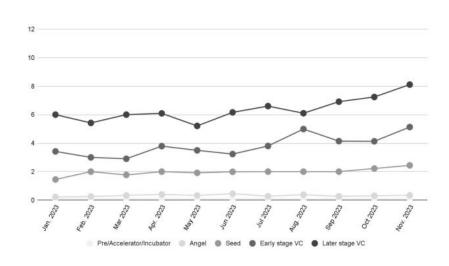


Take-away

Median deal sizes for later stages declined from \$10.00 million all the way down to \$5.62 million in December.

Median Deal Size

by stage in \$M in 2023



Take-away

In 2023, median deal sizes started rising again throughout the year with late stage deal sizes reaching \$8.1 million in November.

November 2023 unveiling upward trends in Median Post Valuations, yet still below peak 2022 levels

Median Post Valuation

by stage in \$M in 2022

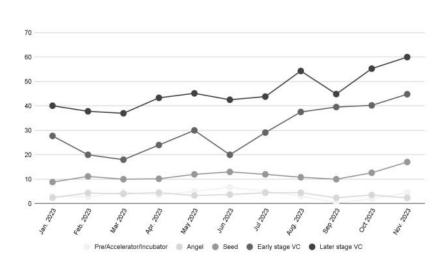
70 60 50 40 30 20 10 Pre/Accelerator/Incubator Angel Seed & Early stage VC Later stage VC

Take-away

By **September 2022, valuations in later stages** were **almost cut in half** from their peak in January.

Median Post Valuation

by stage in \$M in 2023



Take-away

Valuations in early stages saw a steep rise throughout the year more than doubling from June to November.

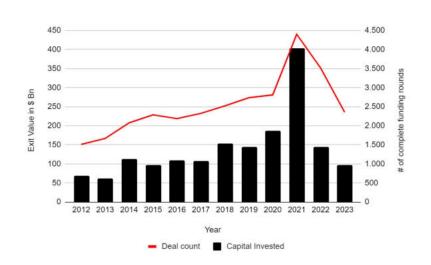
"Investors say that not only have higher interest rates caused a rethink of valuations, the current IPO drought and lack of other exit opportunities has made them more selective."

Krystal Hu - Reuters

Exit activity has pulled back sharply since the all-time records set in 2021

VC-backed Exit Volume

Exit Value & number of rounds, 2014 - 2023

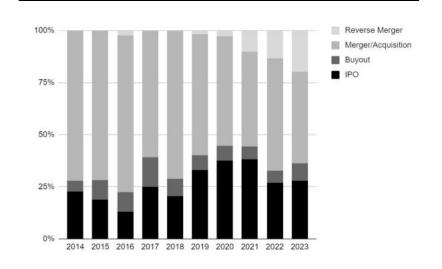


Take-away

Disclosed **exit volume** for **VC-backed startups peaked** in **2021** with **\$403.98B** in invested capital over **4.400 rounds**.

VC-backed Exits

by Exit Type in %



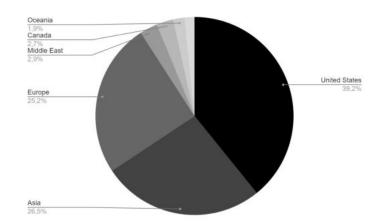
Take-away

The macroeconomic environment has brought IPO activity to a halt since 2021 and PEs are picking up the pieces.

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

Global Startup Distribution

by number of startups per region

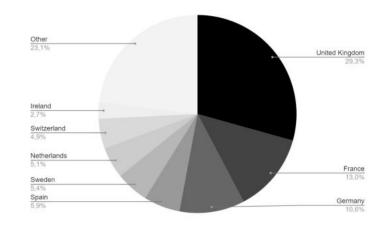


Take-away

- A majority of startups is located in the United States with over 15.200 Startups
- Asia's strong presence is driven by **tech hubs** in countries like **China** and **India**, contributing with **10.305 Startups**
- Europe is the third biggest region with over 9.800 Startups

European Startup Distribution

by number of startups per region



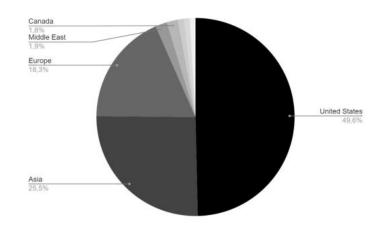
Take-away

- The United Kingdom has the highest number of startups among the listed European countries, with 2.876 Startups headquartered in the UK.
- Followed by France with 1.271 Startups and Germany with 1.043

The US dominating Global Startup Ecosystem with highest Deal Count and Funding Volume

Capital Invested by Global Region

by region in %

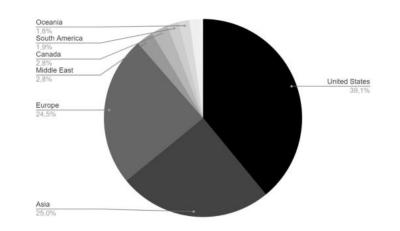


Take-away

- The North America leads in capital invested among global regions with a total of \$157.00B in 2023, totaling almost 50% in the global venture capital market.
- Asia and Europe follow with Asia invested \$81.00B and Europe \$58.00B

Deal Count by Global Region

by region in %



Take-away

- The **United States** maintains its **dominance in deal count** among global regions with **16.940 deal**s in 2023
- Followed by **Asia (10.864)** and **Europe (10.630)**
- This aligns with the distribution pattern of invested capital

This was 2023 in VC

Top 10 Startup Hubs Globally (1/2)

by funding raised in 2023



Top 10 Startup Hubs Globally (2/2)

by funding raised in 2023



Top 10 Incubators & Accelerators in 2023

Name	HQ Location	# Investments	Notable Investments
Techstars	Boulder, US	830	Hydro Wind Energy, Kanjo, Advosense, Esqa, Moonai, Pack, Airtime, Wryte
Y Combinator	Mountain View, US	635	Sanvivo, Atla, Defer, Escape, Ivy, Quack Al
Plug and Play Tech Center	Sunnyvale, US	371	Sunsave, Mercanis, Colonia, Apian, Natix, Syndi, Qaptis, Spenfi, Fixed, Jimo
Google for StartUps	San Francisco, US	205	Zanifu, Binarly, BuuPass, Dila Afrika, Botco.ai
Tech Incubator Program for Startups	Seoul, South Korea	119	Narnia Labs, Namdo Market, Aeonus, Dalpha
Outlier Ventures	London, UK	98	PostQuantum, Tokenguard, Blokhost
gener8tor	Tallinn, Estonia	97	ConverSight, Qualifi, Uptime Health, Ponto
National Science Foundation Innovation Corps Program	Alexandria, US	70	YektaSonics, Map-Collective, Tiami Networks, Sentinel Biontech
IndieBio	San Francisco, US	64	Prime Roots, QuantumCyte, Asterix Foods, BiomeSense
StartUp Wise Guys	Tallin, Estonia	61	FreshSense, Interviewer.AI, Fractory

Top 10 Seed Investors in 2023

Name	HQ Location	# Investments	Notable Investments	
Antler	Singapore, Singapore	262 Sprinque, AIRMO, Flowla, Maya, Traxlo, SuperFi, Pickles, Amply, Goyaa, Nexro		
Pioneer Fund	Toronto, Canada	125	Octo, AOA Dx, Nest Genomics	
sosv	Princeton, US	111	BiomeSense, MedicalDevice Corner	
Goodwater Capital	Burlingame, US	106	Clivi, Bluedot, Alfie Health, Clearspace	
Alumni Ventures	Manchester, US	86	Hyfé, Bionic Health, Mojave Energy Systems	
10X Capital	New York, US	77	Paintbrush, ImmuneBridge, Anything World	
500 Global	Pleasant Hill, US	70	Motion, Clivi, OEN, Cometa	
Enterprise Ireland	Dublin, Ireland	68	Positive Carbon, Strong Bo, GgreyScout	
Soma Capital	San Francisco, US	58	Tranch, Gridware, Arkifi, Homeflow, Finmo	
Sequoia Capital	Menlo Park, US	57	Qyber, Felix, LumaAl, TRIVER, Fortuna Health	

Top 10 Early Stage Investors in 2023

Name	HQ Location	# Investments Notable Investments	
Antler	Singapore, Singapore	304	Agentatech, Vero Technologies, Agri Sparta
Alumni Ventures	Manchester, US	166 Generate Biomedicine, Kriya Therapeu Ascend Elements	
Capital Factory	Austin, US	160	Venus Aerospace, Diligent Robots
SOSV	Princeston, US	160	BioSapien, Optimize Health, LexxPlus
FJ Labs	New York, US	152	LeafLink, Kyte, Odeko, Schüttflix
Andreessen Horowitz	Menlo Park, US	141	TRIVER, Sky Mavis, Instabase
Pioneer Fund	Toronto, Canada	141	Anthropic, PersistAl, Immune Bridge
Enterprise Ireland	Dublin, Ireland	132	Shorla Oncology, Inclusio, Greyscout
Sequoia Capital	Menlo Park, US	129	TRIVER, Bluebird, Wiz, LayerZero
Goodwater Capital	Burlingame, US	119	Bitstack, Hallow, Brine, JustPaid

Top 10 Late Stage Investors in 2023

Name	HQ Location	# Investments Notable Investments		
European Innovation Council Fund	Brussels, Belgium	87	Ganymed Robotics, Bluedrop Medical, Comptex Solutions	
FJ Labs	New York, US	68	Alto Pharmacy, Odeko, Paradromics	
Capital Factory	Austin, US	55	Paradromics, Vironexis Biotherapeutics	
Alumni Ventures	Manchester, US	53	RED6, Asced Elements, Verge Genomics	
SOSV	Princeton, US	47	Particle, Prime Roots, QuantumCyte	
CICC Capital	Beijng, China	38	Hithium, Astronergy, Libode	
500 Global	Pleasant Hill, US	35	eFishery, Darwinbox, Hydroleap	
Mitsubishi UFJ Capital	Tokyo, Japan	35	PowerSpin, Caddi, Kyoto Fusioneering	
Enterprise Ireland	Dublin, Ireland	34	Hexafly, TripAdmit, HR Duo	
Global Brain	Tokyo, Japan	34	Caddi, Trove, Caelux	

Top 10 Corporate Investors in 2023

Name	HQ Location	# Investments	Notable Investments	
Google Ventures	Mountain View, US	66 Hugging Face, Typeface, Chronosphere		
SMBC Venture Capital	Tokyo, Japan	66	Caddi, Kyoto Fusioneering, Edit Force	
Coinbase Ventures	Oakland, US	39	Ambergroup, Blockchain.com, Flashbots	
Salesforce Ventures	San Francisco, US	39	Hugging Face, Anthropic, Cohere	
Sony Innovation Fund	Tokyo, Japan	35	Quantum Motion, Josys, Verity	
Intel Capital	Santa Clara, US	34	Al21 Labs, Fly.io, Censys, Fabric8Labs	
Samsung Venture Invest	Seoul, South Korea	30	Anthropic, d-Matrix, PhantomAl	
Eight Roads (Fidelity)	Hamilton, Bermuda	29	NOCD, K36 Therapeutics, Safe (NM Software)	
Z Venture Capital	Tokyo, Japan	29	Endowus, True Balance, Josys	
SEEDS Capital (Enterprise Singapore)	Singapore, Singapore	28	Engine Biosciences, Nutrition Technologies, Transcelestial	

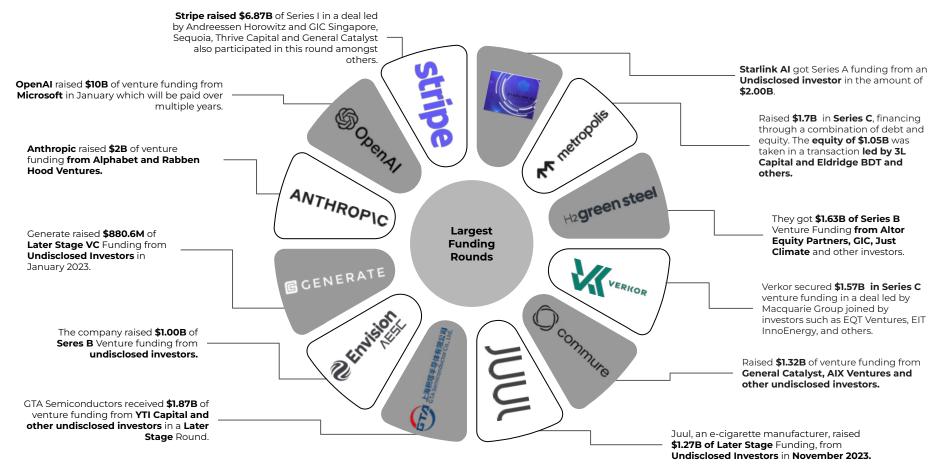
In 2023, all eyes were on Artificial Intelligence as the standout theme, with industry insiders predicting it to be the top priority for investors in 2024.

A shift towards investing in the infrastructure behind AI is occurring - investors are turning their attention to the picks and shovels. These fundamental building blocks are where the real money moves will happen.

Largest VC-backed Acquisitions in 2023

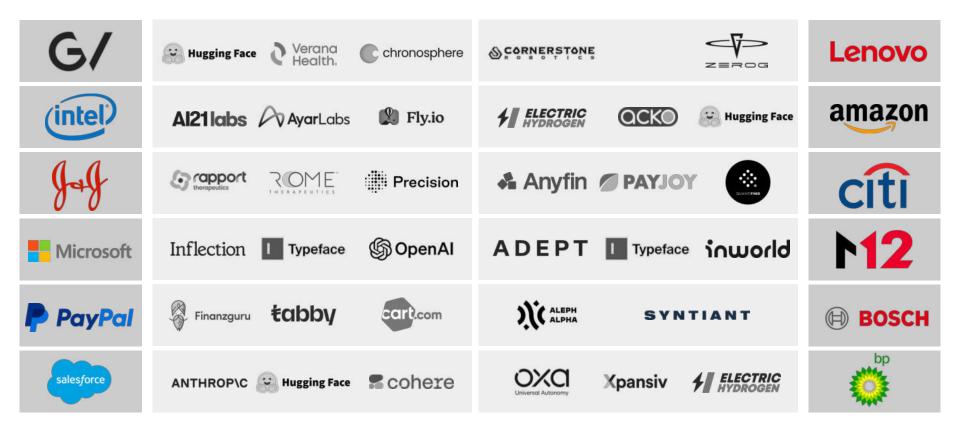
Company	Acquisition Value	Date	Acquirer	Segment
V ersanis	\$1.93B	July, 2023	Lilly	Healthcare Prevention
WIDEDRBIT	\$1.60B	February, 2023	CONSTELLATION SOFTWARE INC.	Broadcasting Software
TSI SEMICONDUCTORS	\$1.50B	September, 2023	BOSCH	Semiconductor Manufacturing
kerecis	\$1.30B	August, 2023	Coloplast	Drug Discovery
/∭ mosaic™L	\$1.30B	July, 2023	 	Machine Learning Software
TMUNITY	\$1.30B	February, 2023	Kite Pharma	Biotherapeutics Platform
GCLSemi	\$1.14B	February, 2023	中环股份 ZHONGHUAN SEMICONDUCTOR	Silicon wafer manufacturing
Carbon	\$1.10B	August, 2023	Occidental	ClimateTech
inversago	\$1.08B	August, 2023	novo nordisk [®]	Drug Development
DT A R M A	\$1.00B	July, 2023	U NOVARTIS	Therapeutics Technology

Major investments in 2023



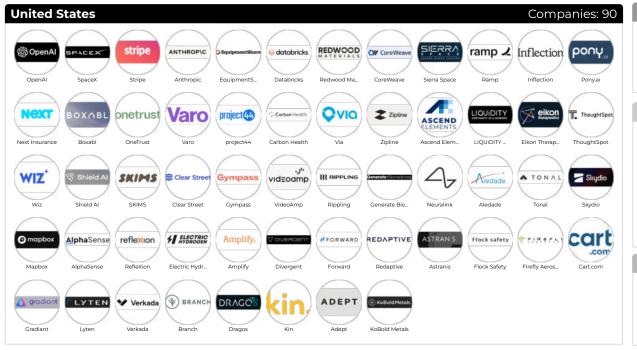
32

Top Corporate VC investments in 2023

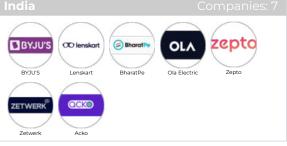


167 Companies reached Unicorn status in 2023

Not all unicorns included here













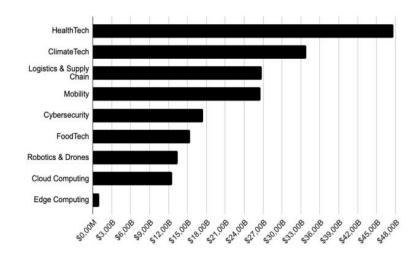
representing \$807B in market value today

Sector Analysis

Macroeconomic events and newest tech trends influence which sectors attract the most funding

Venture Funding 2022

Total Funding per analyzed Sector

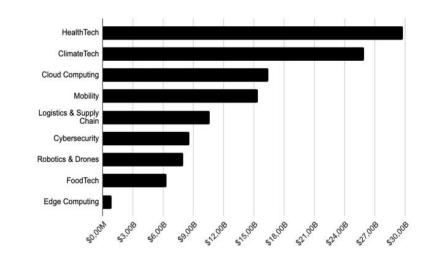


Take-away

HealthTech and ClimateTech saw the highest funding volumes in both years driven by post-pandemic trends and increasing demand for sustainable solutions.

Venture funding in 2023

Total Funding per analyzed Sector



Take-away

Cloud Computing only saw this rise to the top of the list due to the \$10 billion mega-round invested into OpenAI.

ClimateTech

Increasing Adoption of Climate Goals in Policy, Corporations and Consumption

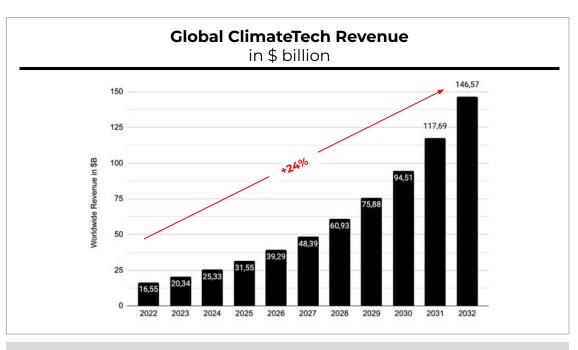


The global ClimateTech market generated a revenue of \$16.55B in 2022



The global ClimateTech market is expected to grow at a **CAGR of 24%** (2022-2032).



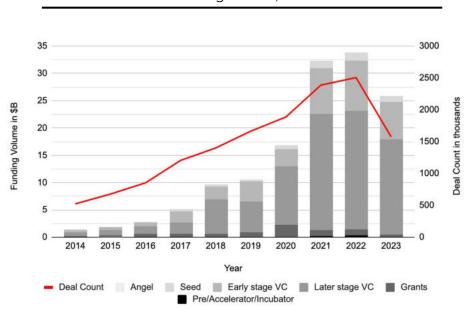


More and more policy guidelines are coming into effect paired with a changing consumer demand for increased sustainability of products. This fuels growth in the sector as corporates are meeting these new demands.

Despite the VC downturn in 2022 ClimateTech investments reached new records

Annual funding ClimateTech

Total funding & deals, 2014-2023



Take-aways

- \$140.75 billion were invested in the ClimateTech sector in 14,685 deals over the last 10 years
- Since our last analysis in August, \$7.00 billion in additional capital in 717 rounds flowed into the sector
- Venture activity accelerated significantly as many corporates are implementing and following new sustainbility guidelines

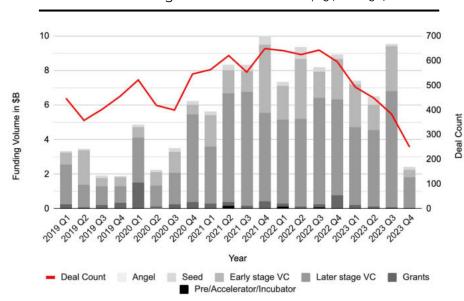
Notable Investors

- Corporates: Shell, bp, Chevron, TotalEnergies, Aramco, ENGIE, BASF, Toyota, Google, Samsung
- VC-Funds: Breakthrough Energy, Lowercarbon Capital, Climate Capital, Elemental Excelerator
- **Government Investors:** US Department of Energy, EIT InnoEnergy, EIT Climate-KIC, Innovate UK

The energy segment leads the funding charge with a special interest from oil industry corporates

Quarterly funding ClimateTech

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



Take-aways

- 2023 saw \$25.9 billion invested in 1.577 funding rounds. In Q4 the number of rounds dropped by 35% and funding volume has returned to 2020 levels after a strong finish to Q3.
- Notably, median deal sizes have been ranging from \$2.00 - \$5.10 million, in Q4 2023 the median deal size was \$4.00 million.
- The highest median post valuation can be observed in Q2 2023 sitting at \$45.00 million. Median Post Valuations have been ranging between \$17.00 - \$39.55 million.

Top Investors 2023

- Corporates: Aramco (10), bp (8), Equinor (8), Shell (6), Toyota (6), Doral Group (5), EDP (5), Mitsubishi (5), BHP Group (4), SAIC (4), National Grid (4)
- VC-Funds: EIC Fund (24), SOSV (23), Climate Capital (16), Energy impact Partners (15), Lowercarbon Capital (13), Fifth Wall (9), HAX (9), Leap Forward Ventures (9), Collaborative Fund (8)

Top Funding rounds in ClimateTech in 2023

Business Description

The company provides a fully integrated, digitalized, and automated

greenfield steel plant by bringing together raw materials, renewable

Investors

Round

H2green steel

energy, local expertise, and artificial intelligence, enabling clients to have access to fossil-free steel at a leading cost position.

The company's technology recycles and processes scrap from battery

Temasek, HITACHI, Schaeffler, EIT InnoEnergy, Daniel Ek, SCANIA, Mercedes and others

\$1.63B Series B



The company's technology **recycles** and **processes scrap from battery cell production** and consumer electronics and **offers large-scale sources** of **domestic anode and cathode materials** produced **from** an increased number of **recycled batteries**.

Microsoft, Caterpillar, Amazon, Ford, Amazon, Breakthrough Energy, Tesla, T. Rowe Price and others

\$997.18MSeries D



Manufacturer and developer of critical material of lithium-ion battery and lithium iron phosphate battery. The company focuses on storage battery and battery storage systems, enabling clients with safe, efficient, clean and sustainable energy storage solutions.

Matrix Partners, Xiamen Torch Group, Hefei Industry Investment Group, Fenghe Capital and others

\$628.99MSeries C



Developer of an **electric commercial van** company intends to reduce climate change. The company's **long-range electric van** which **adopted battery swap technology** can significantly **reduce GHG emissions**.

Hidden Hill Capital, Citic Securities Investment, Boyu Capital, GLY Capital Management and others

\$600.00M Series A



The company's **platform** provides **spot exchange** for **environmental commodities**, including **carbon credits**, **renewable energy certificates**, and **energy solutions** with the premier provider of **registry infrastructure** for energy, power, environmental markets, and advisory services.

Blackstone, Occidental Petroleum, S&P Global, bp Ventures, Goldman Sachs, Macquarie and others

\$525.00MLater Stage VC

Virta

Search Field	Charging Solutions
Location	Helsinki, Finland
Year Founded	2013
Total Funding	\$140.57M (Growth Investment)
Last Round	\$93.03M (04/2023)
Investors	E.ON, JXTG Group, Helen Ventures, Future Energy Ventures, TESI, Jolt Capital
Website	<u>virta.global</u>

DITTA

EV Charging

Business Overview

- Cloud-based management solution for EV charging stations
- Provides whitelabel solution that connects EV drivers, charging points, and energy system in a scalable ecosystem
- Features include cloud-connected charging devices, automated billig, energy mgmt etc.

Use case & customers

- Helps **E.ON** to make charging stations available to EV users across Europe.
- "Aim to set up the digital backbone for mobility world."
- Fastest EV charging service provider in 2020

Similar Companies

- EV Connect (2009, Series B (\$25.00M), Mitsui & Co, Plug & Play Tech Center)
- **Greenflux** (2011, Series B (\$13.00M), ICT, BOM)

_ Business Overview

- Developer of e-vehicle charging solution
- Claims to **charge lithium-ion batteries** in half of the usual time
- Use Al-based software algorithms and electronics to optimize charging system in vehicles
- Goal is to accelerate adoption of EVs

Use case & customers

- Self-learning algorithm creates unique battery profiles to charge them more efficiently
- Technology can be **applied to vehicles**, **drones**, **electric tools** and similar

_ Similar Companies

- Chargefox (2017, Series A (\$8.00M), Renewable Energy Agency, Greg Roebuck)
- CaCharge (2015, Series A(\$2.5M), EIT InnoEnergy)

GBatteries

Search Field	Charging Solution
Location	Ottawa, CA
Year Founded	2012
Total Funding	Undisclosed
Last Round	Undisclosed (02/2020)
Investors	Y Combinator, Breakthrough Energy, Airbus, 10X Group, TechFounders and others
Website	<u>gbatteries.com</u>







CLIMATE

Carbon Offset

Platform

Location Valencia, Spain

Year Founded

Total Funding \$23.04M (Series B)

Last Round \$14.76M (01/2022) **Investors** Wayra, Plug & Play, ClearSky, Omron Ventures. SIX Fintech

Ventures, Conexo Ventures, etc. Website

Business Overview

• Provider of blockchain-based environmental services, helping companies offset their carbon footprint and invest in green financial products for carbon neutrality, through transparent carbon credit transactions.

Use case & partners

- Acciona, IASE and other
- Santander Bank uses ClimateTrade to help its customers measure and offset their carbon footprint in support of Santander's sustainability goals.

Similar Companies

- Emitwise (2022, Series A (\$10.00M), Xplorer Capital and others)
- AirCarbon Exchange (2022, Series B (\$15.00M), Trirec and others)

Business Overview

• Developing a technology that transforms carbon dioxide into valuable products by accelerating carbon dioxide mineralization more than a million-fold with minimal energy use, offering clients the ability to utilize carbon-negative raw materials.

Use case & partners

- Partnership with RWTH Aachen and others
- The mineralization technology enables the production of carbon-negative raw materials for industries like paper and concrete, offering a promising solution to reduce CO2 emissions from construction.

Similar Companies

- Bloom Biorenewables (2022, Accelerator (\$0.25M), Amcor Lift-Off)
- eXaer Carbon (2022, Early Stage (Undisclosed), SciFounders)

Paebbl^{*}

Paebbl

I debbi	
Search Field	Carbon Dioxide Conversion, Carbon-negative materials
Location	Stockholm, Sweden
Year Founded	2021
Total Funding	\$7.82M (Seed)
Last Round	\$7.82M (10/2022)
Investors	2050, Pale Blue Dot, Wave Ventures, Walerud Ventures, First Fellow Partners, etc.
Website	paebbl.com

Carbon Dioxide Conversion

Cloud Computing

The overall Cloud Computing market is expected to grow at high growth rates in the coming years



Cloud Computing generated a revenue of **\$545.00B** in **2022** worldwide



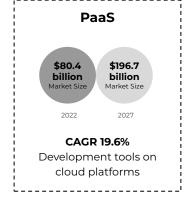
The global Cybersecurity market is expected to grow at a **CAGR of 17.9%** (2022-2027).

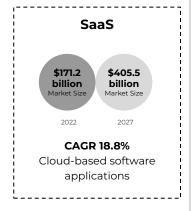
The **global cloud computing market** is experiencing **significant growth** due to increasing **cost-savings** and higher **ROIs.**

Cloud Market Sizes & Growth Rates

by Service Model





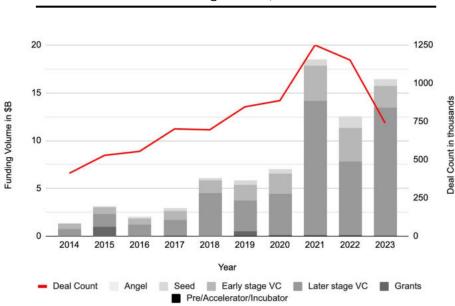


Cloud adoption has significantly accelerated in recent years due to offering flexible and cost-effective data storage solutions. US-based companies have been dominant players but China-based companies Alibaba, Tencent and Baidu are on course to building top-performing cloud solutions themselves.

Taking OpenAl's mega deal out of the equation in 2023 shows a clear return to pre-Covid funding levels

Annual funding Cloud Computing





Take-aways

- \$76.03 billion were invested in the Cloud Computing sector in 7,769 deals over the last 10 years.
- Microsoft's \$10 billion investment into OpenAI in 2023 makes up a large chunk of that funding volume.
- Venture activity accelerated significantly during the pandemic due to remote work but has returned to pre-pandemic levels.

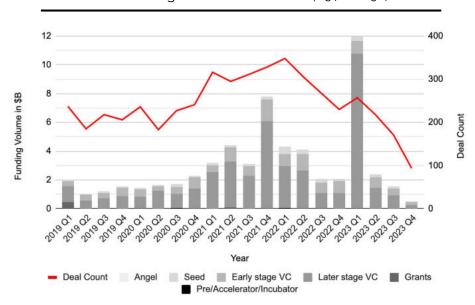
Notable Investors

- Corporates: Intel, Google, Salesforce, Dell, Samsung, Tencent, Alibaba, Wayra, Cisco
- **VC-Funds:** Accel, Insight Partners, Lightspeed Venture Partners, Andreessen Horowitz, Sequoia
- Government Investors: US Department of Defense, National Science Foundation, Innovate UK

Quarterly funding in Cloud Computing dropped by 94% from its peak in Q4 2021

Quarterly funding Cloud Computing

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



Take-aways

- 2023 saw \$16.4 billion invested in 740 funding rounds. In Q4 the number of rounds dropped by 45% and funding volume has seen the lowest quarter in the last 5 years.
- Notably, median deal sizes have been ranging from \$2.20 - \$5.20 million, in Q4 2023 the median deal size was \$6.00 million.
- The highest median post valuation can be observed in Q4 2023 sitting at \$53.7 million.
 Median Post Valuations have been ranging between \$20.5 - \$42.5 million.

Top Investors 2023

- Corporates: Intel Capital (5), Google (4), Microsoft (4), Salesforce (4), Atlassian (3), Baidu (3), Nvidia (3), Databricks (2), Microsoft (2), Paypal (2), Tencent (2)
- VC-Funds: Antler (8), Alumni Ventures (7), Andreessen Horowitz (7), Firestreak Ventures (7), Sequoia Capital (7), Calm Ventures (6), General Catalyst (6), Khosla Ventures (6), Pioneer Fund (5)

Top Funding rounds in Cloud Computing in 2023

Business Description

Investors

Round



OpenAl is a **leading Al research lab** focused on advancing the field of digital intelligence. OpenAl capitalizes on the **growing demand for sophisticated language models** and innovative Al solutions, positioning itself as a **key player in the future of Al-driven applications** and services.

Microsoft

\$10.00B Later Stage VC



Developer of a cloud infrastructure platform that accelerates teams' workflows and provides access to compute resources that match the complexity of models, enabling clients to scale efficiently and adapt to rapidly evolving compute requirements.

NVIDIA, Coatue Management, DCVC, Magnetar Capital, Basel0 Partners and others

\$421.00MSeries B

ADEPT

The company specializes in machine learning research and builds Al systems where machines work together with people in the driver's seat, providing clients with Al that can automate any process and give them more time for the work they love.

Atlassian Ventures, M12, NVIDIA, Greylock, 10X Capital, Root Ventures, Addition and others

\$350.00M Series B

OpenAI is a **leading AI research lab** focused on advancing the field of digital intelligence. OpenAI capitalizes on the **growing demand for sophisticated language models** and innovative AI solutions, positioning itself as a **key player in the future of AI-driven applications** and services.

Coatue Management, Sequoia Capital, Andreessen Horowitz, Khosla Ventures, Founders Fund and others

\$300.00M Later Stage VC

Builder.ai

The **turnkey platform** and **human-assisted AI** empowers enterprises, small businesses, and entrepreneurs to **build**, **run and scale their software without** requiring **technical expertise** and any lines of code.

Insight Partners, Microsoft, Lakestar, Qatar Investment Authority, ICONIQ Capital, and others

\$250.00M Series D

ArcWare	
Search Field	Cloud 3D Platform
Location	Munich, Germany
Year Founded	2019
Total Funding	\$4.00M (Seed)
Last Round	\$4.00M (2020)
Investors	Patentpool Group, MIFCOM
Website	<u>arcware.com</u>



Cloud Streaming

Business Overview

 Pioneers an innovative 3D platform for real-time graphic streaming via their own cloud, allowing users to interactively configure items in 3D, observe live updates, and elevate the online shopping journey with visually captivating, customer-centric elements that enhance the overall dynamic experience.

Use case & customers

- Customer: **Tyde one, Swarovski** and others
- Arcware's software can be used as an online retailer, or in brick-and-mortar retail to offer customers a unique product presentation and personalization in 3D.

Similar Companies

- Vagon (2019, Seed (\$0.5M), APY Ventures, Eren Bali and Sina Afra)
- PureWeb (2004, PE Growth (\$9.51M), ATB Private Equity)

Business Overview

 Software development platform for creating open-source forecasting software, allowing users to establish cloud-based time series processing services. It employs continuous integration and deployment to enable feature creation at both time series and temporal levels.

Use case & customers

- Customers: Nestlé, Walmart, FedEx and other
- The Platform can be used as forecasting tools and anomaly detection to improve decision making in various departments and thus can help in inventory management, demand forecasting, financial planning.

Similar Companies

- Altogic (2019, Seed (\$1.00M), ScaleX Ventures and others)
- Exaloop (2021, Seed (\$0.83M), Reinforced Ventures and undisclosed investors)

Nixtla

Search Field	SaaS, Open Source Software
Location	New York, USA
Year Founded	2021
Total Funding	\$6.10M (Seed)
Last Round	\$5.98M (04/2023)
Investors	Google for Startups, Techstars, True Ventures and others
Website	<u>nixtla.io</u>







Kupeark	
Search Field	CloudTech & DevOps, SaaS
Location	New York, USA
Year Founded	2022
Total Funding	\$2.86M (Pre-Seed)
Last Round	\$2.86M (10/2022)
Investors	Credo Ventures, LaunchHub Ventures, Ui Path
Website	kubeark.com

kubeark

SaaS

Business Overview

• The company's platform maintains individual instances, deploys apps in real-time, manages clients, reduces the complexity of managing environments, offers automatic system repair, and more, enabling the DevOps team with unified instruments for running containerized workloads on any infrastructure.

Use case & customers

• Kubeark enables their customers to seamlessly manage software lifecycles across any infrastructure, while continuously optimizing performance and resource efficiency.

Similar Companies

- Cocktail Cloud (2020, Series A (\$4.37M), G.N. Tech Venture Capital and other
- Simpli Contract (2020, Series A (\$5.00M), Undisclosed)

Business Overview

• The company engages in building, scaling, and developing performance-oriented data analytics software as well as publishes apps with one-click deployment to the cloud along with a code editor that works with collaborative notebooks

Use case & customers

• Genie is dedicated to **empowering data** science and R&D teams with cutting-edge low/no-code tools, designed for the swift development and deployment of data apps.

Similar Companies

- Plotly (2013, Secondary (\$11.70M), Undisclosed)
- Streamlit (2018, Acquired (\$650.75M), Snowflake)

Genie Framework

Search Field	Artificial Intelligence & Machine Learning
Location	Barcelona, Spain
Year Founded	2021
Total Funding	\$2.32M (Pre-Seed)
Last Round	\$1.2M (10/2023)
Investors	Speedinvest, APX, Shine Capital, Expat Ventures, Antler
Website	genie framework.com

AI & ML



Cybersecurity

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

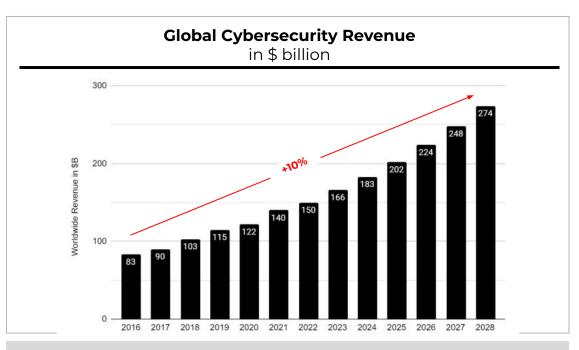


Cybersecurity generated a revenue of **\$150.00B in 2022** worldwide



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.**



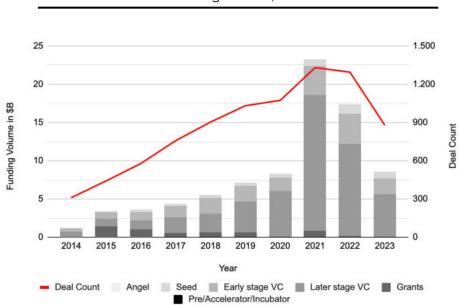
Cyber attacks and the **cost of cybercrime** worldwide have been **rapidly increasing**, therefore cybersecurity **revenue** will **grow at a stable CAGR** in the coming years.

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

Annual funding Cybersecurity

CYBERSECURITY

Total funding & deals, 2014-2023



Take-aways

- \$83.04 billion were invested in the Cybersecurity sector in 8,604 deals over the last 10 years.
- Especially Cloud Security startups have been the focus of VC investments in recent years.
- Venture activity accelerated significantly during the pandemic due to remote work and an increasing sophistication of cyber attacks but has returned back to "normal".

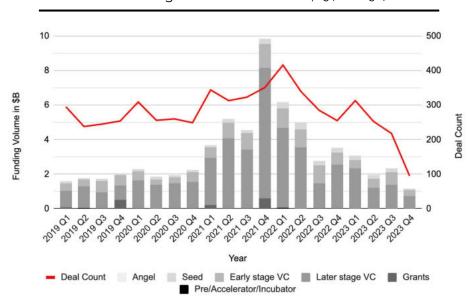
Notable Investors

- Corporates: Google, Cisco, Intel, Microsoft, Salesforce, Dell, Samsung, Wayra, Citi, Sony
- **VC-Funds:** Accel, Insight Partners, Lightspeed Venture Partners, Andreessen Horowitz, Sequoia
- Government Investors: US Department of Defense, National Science Foundation

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

Quarterly funding Cybersecurity

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



Take-aways

- 2023 saw \$8.6 billion invested in 879 funding rounds. In Q4 the number of rounds dropped by 56% and funding volume has seen the lowest quarter in the last 5 years.
- Notably, median deal sizes have been ranging from \$1.70 - \$4.00 million, in Q4 2023 the median deal size was \$4.00 million.
- The highest median post valuation can be observed in Q4 2023 sitting at \$28.25 million.
 Median Post Valuations have been ranging between \$13.05 - \$28 million.

Top Investors 2023

- Corporates: Capital One (4), Dell (4), Google (4), IBM (4), Salesforce (4), Cisco (3), CrowdStrike (3), Booz Allen (2), Chevron (2), Intel (2), Microsoft (2)
- VC-Funds: Paladin Capital Group (10), Sequoia Capital (9), Alumni Ventures (8), Ten Eleven Ventures (8), Capital Factory (7), CyberStarts (7), Lightspeed Venture Partners (7), a16z (6)

Top Funding rounds in Cybersecurity in 2023

Business Description

Investors

Round



Cryptocurrency security technology, providing hardware wallets and server appliances based on a secure, low-footprint operating system. Their solutions offer cybersecurity services for digital assets, catering to financial institutions.

10T Holdings, True Global Ventures, Digital Finance Group, iAngels Technologies and others

\$493.00MSeries 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.

Morgan Stanley Tactical Value, 2B Global Capital, Karmel Capital, Avitas Capital Partners and others

\$401.00M 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.

Index Ventures, Greenoaks Capital Partners, Lightspeed Venture Partners and others

\$300.00M Series D



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

\$274.00M Series D



SASE platform that ensures secure global enterprise network connections, integrating software-defined networking and security. It streamlines application access and supports an easy transition from MPLS.

Lightspeed Venture Partners Israel, Singtel Innov8 and others

\$238.00M Series F

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	<u>edgeless.systems</u>

Application Security

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

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

• The tech is partially open source Use case & customers

vulnerabilities in software

Business Overview

• 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

 Automated application security testing platform designed to find and help fix

• The technology relies on **feedback-based** fuzzing (a type of testing in which software is repeatedly confronted with random data)

• Clients include **Bosch. Continental. & Securet**

Similar Companies

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

Code intellige	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	<u>code-intelligence.com</u>	

Application Security



Bugshell For more information contact FULTHOLE HILDHINGLON CONTROL INVESTMENTS@peakzone.io

Search Field Penetration Testing, Cyber Security Solutions Location Berlin, Germany Year Founded

Total Funding Undisclosed (Early Stage VC)

Last Round Undisclosed (11/2022) HCS Beteiliaunasaesellschaft Investor

Website



Security Operations

Currently fundraising.

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)

SaltvCloud

Total Funding

Search Field	Security Operations, Cybersecurity Risk Management
Location	Austin, USA

Year Founded

\$0.02M (Accelerator)

Last Round \$0.02M (06/2020)

Amazon Web Services. Investor Techstars

Website

Security Operations



Edge Computing

Edge Computing addresses lower latency, processing huge data loads & supporting resilience in network connection

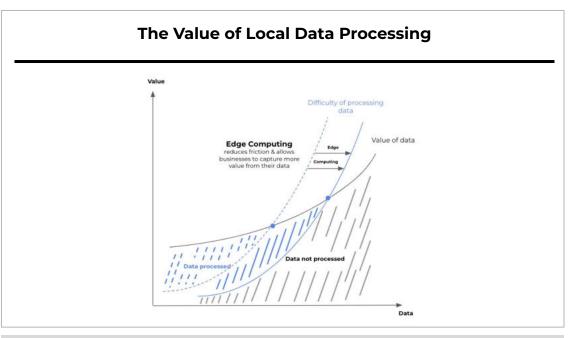


Edge Computing generated a revenue of \$15.96B in 2022 worldwide



The global Edge Computing market is expected to grow at a **CAGR of 36.3%** (2016-2028).

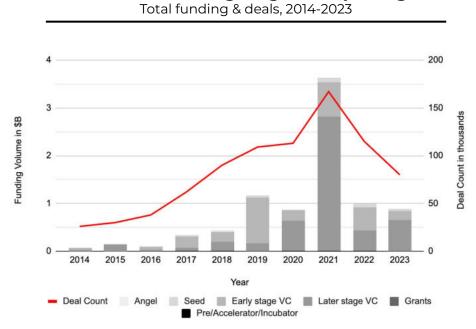
The global edge computing market is experiencing significant growth due to the increasing amount of connected devices and the emergence of 5G & 6G networks.



Processing data at the **source**, helps companies make **faster decisions**. **Sensors**, for instance, generate **huge amounts of data** that require equal amounts of bandwidth. If they are **filtered at the edge**, **less data** needs to be sent **to the cloud**. This **saves costs** in transmission & storage

Funding for Processors and AI chips has accelerated venture investments in Edge Computing in recent years

Annual funding Edge Computing



Take-aways

- \$8.69 billion were invested in the Edge Computing sector in 830 deals over the last 10 years
- Especially Edge Processor & Al chip startups have been the focus of VC investments in recent years.
- Venture activity accelerated in 2019 together with the autonomous vehicle hype with billions invested in Horizon Robotics

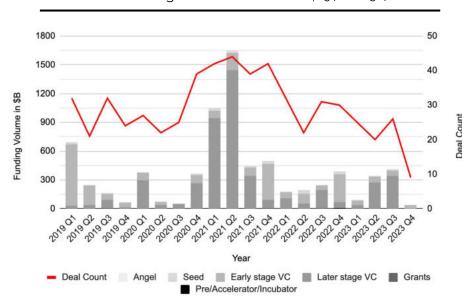
Notable Investors

- Corporates: Intel, Dell, Lenovo, Microsoft, Lockheed Martin, Qualcomm, Google, Samsung, ABB, Cisco
- VC-Funds: Almi Invest, Lux Capital, Eclipse Ventures, Accel, Bessemer Venture Partners
- Government Investors: National Science Foundation, US Department of Defense

The market is still in its early stages and highly fragmented with only very few startups receiving the majority of funding

Quarterly funding Edge Computing

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



Take-aways

- 2023 saw \$888.5 million invested in 80 funding rounds. In Q4 the number of rounds dropped by 65% and funding volume has seen the lowest quarter in the last 5 years.
- Notably, median deal sizes have been ranging from \$2.50 - \$8.50 million, in Q4 2023 the median deal size was \$4.62 million.
- The highest median post valuation can be observed in Q3 2021 sitting at \$95.88 million.
 Median Post Valuations have been ranging between \$18.20 - \$62.00 million.

Top Investors 2023

- Corporates: Dell (2), Merck (2), TELUS (2), Alibaba (1), Aramco (1), Bosch (1), Foxconn (1), Hyundai (1), Intel (1), Kia (1), Lenovo (1), Microsoft (1)
- VC-Funds: Cornerstone Ventures (2), Z&Y Capital (2), 186 Ventures (1), Almi Invest (1), Andreessen Horowitz (1), Credo Ventures (1), Insight Partners (1), Verve Ventures (1), Quiet Capital (1)

Top Funding rounds in Edge Computing in 2023

Business Description

Investors

Round



The company leverages data, thermodynamic models, structured finance, and edge computing to electrify buildings, enabling communities to save annual energy costs while ensuring green, smart, and healthy cities.

Microsoft, 10X Capital, Bezos Earth Fund, Salesforce Ventures, Ben Horowitz, Kimbal Musk and others

\$154.50MSeries B



Developer of **application-specific integrated circuit processors** that can scale up from **battery-powered IoT devices** to **large cloud servers** to offer scalable and **efficient hardware for deep learning**, enabling businesses to support future technology in the field of machine learning.

Hyundai, Samsung, Fidelity, Kia, Maverick Capital, Moore Capital Management, Epiq Capital and others

\$100.00M Later Stage VC



The company's **application-specific integrated circuit** offers **real-time recognition**, inference, and **analysis services** with **no cloud connection**, enabling companies to perform the quick implementation of different artificial intelligence applications.

Alibaba, Foxconn, Qualcomm, Sequoia Capital, Delta Electronics, Kube VC and others

\$97.00MSeries B



Fly.io

The company's **JavaScript platform** allows users to **write, test, and run code locally** and then helps to **deploy it everywhere** and watch it **scale**, enabling clients to **run app servers close to** their **users**.

Dell, Andreessen Horowitz, EQT Ventures, Intel, Y Combinator, Flight Ventures, Fuel Capital and others

\$70.00MSeries C



Developer of hyper-scale networking software designed to offer software-powered network transformation for the interconnected world. The company's software enriches human experiences by interconnecting people, machines, and data.

HITACHI, Samsung, SoftBank, General Catalyst, Lightspeed Venture Partners and others

\$65.00MSeries D

Hailo

Search Field	Neural Learning Processors
Location	Tel Aviv, IL
Year Founded	2017
Funding in \$ Mn.	\$221.17 Mn
Last Round & Stage	\$100 Mn Series C (07.2021)
Investor	Asi Shmeltzer, Rakefet Russak-Aminoach, OurCrowd, NEC, ABB,
Website	<u>blaize.com</u>

$H \Lambda IL \Box$ Empowering Intelligence

Edge Computing Semiconductors

Business Overview

- Processors can be **embedded into devices** and they comprise an architecture that enables edge devices to run deep learning applications instead of using the cloud
- Includes real-time operation, reduced power consumption, as well as a software **development** kit co-developed with the hardware

Use case & partners

- Used in the automotive industry, smart cities, drones, AR & VR applications
- Received a grant from the European Research & Innovation program
- Partnering with **Macnica**, a semiconductor producer, to expand in the **Japanese market**

Similar Companies

- **Habana** (2016, Acquired (\$2 Bn), Intel)
- Horizon Robotics (2015, Series C (\$3.1 Bn), Seguoia Capital, Intel Capital)

Business Overview

- Analog techniques for **signal processing** & neural networks reduce number of transistors required
- Performs calculations inside a **dense** flash-memory array, which allows parallel processing capabilities
- Delivers hardware, software tool kit & trained neural networks to ease deployment in edge devices

Use case & partners

- Used in Smart Cities. ADAS & Autonomous **Driving**, and in **Robotics**
- Spin-off from University of Michigan
- Recent funding round to be used for mass producing microchips & developing more hardware & software products

Similar Companies

- Arm (1990, Acquired (\$40 Bn), NVIDIA)
- Graphcore (2016, Series E (\$767 Mn), Sequoia Capital, Dell Technologies, Microsoft, Robert Bosch VC, Samsung Catalyst, Atomico)

Mytnic	
Search Field	Al Microchips
Location	Austin, US
Year Founded	2012
Funding in \$ Mn.	\$177.41 Mn
Last Round & Stage	\$20.49 Mn Later Stage VC (02.2023)
Investor	BlackRock, DFJ, HPE, Lockheed Martin, Softbank Ventures, Future Ventures
Website	mythic-ai.com

Edge Computing Semiconductors



Business Overview

 Continuously reconfigures delivery networks to ensure workloads are running in optimal locations to meet real-time traffic demands

• Empowers DevOps teams to run Node.is **applications** at the network edge for fast results with enterprise level protection

• Visualize how **traffic is flowing** through edge architecture, delivering valuable insights

Use case & partners

- Delivering faster & more secure digital experiences at the edge
- Empowers **application engineers** to run any workload, anywhere
- Partnering with **DigitalOcean** to offer edge solutions to SMFs

Similar Companies

- Fastly (2011, IPO (05/2019))
- Kwicr (2012, Acquired (Undisclosed), Instart Logic)

Edge Cloud

63 🔥

Section.io	
Search Field	Edge-as-a-Service provider
Location	Boulder, US
Year Founded	2012
Funding in \$ Mn.	\$23.65 Mn
Last Round & Stage	\$12 Mn Series B (04.2021)
Investor	Techstars, Lumen, Foundry Group, Galvanize, Government of Australia, Boom Startup
Website	section.io

Owilt

Search Field	Edge Cloud
Location	Redwood City, US
Year Founded	2010
Funding in \$ Mn.	\$137.20 Mn
Last Round & Stage	\$70 Mn Series E (09.2021)
Investor	Bessemer Venture Partners, Cisco, Accel, Redpoint Ventures, and others
Website	<u>gwilt.com</u>



Edge Cloud

Business Overview

- **Software-based** edge delivery nodes deliver both service provider-owned & third party content
- Cloud-based Open API to commercial CDNs & publishers serves as a single point of integration for access to Open Edge Cloud infrastructure
- Centralized management & control plane orchestrates dynamic assignment of edge cloud resources for content delivery

Use case & partners

- Used in video streaming, gaming & VR at the mobile network edge
- Partnering with Cisco & Verizon for building the largest content delivery network, by deeply embedding edge nodes in the service provider's last mile network

Similar Companies

- Theta Network (2016, \$137.41 Mn (Later Stage VC). Samsung Next. Grevcroft)
- Gigamon (2004, \$738.94 Mn (Debt), KKR. Qatar Investment Authority, LBO (2017))

FoodTech

Healthy lifestyles and eating habits have lead to increased revenue opportunities within the Food sector

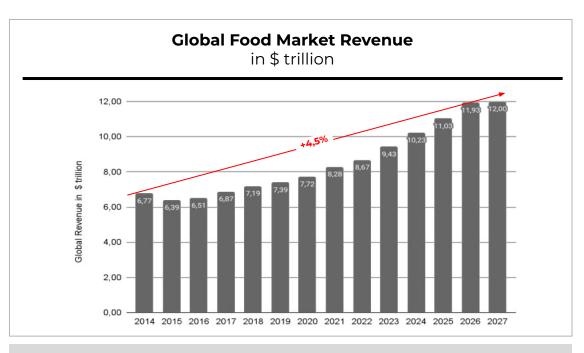


The global Food market generated **8.67 trillion dollars** in revenues in 2022.



The global Food market is expected to grow at a **CAGR** of **4.5%** (2022-2027).

The global food market is having **significant growth** with growing demand for an ever-increasing population.

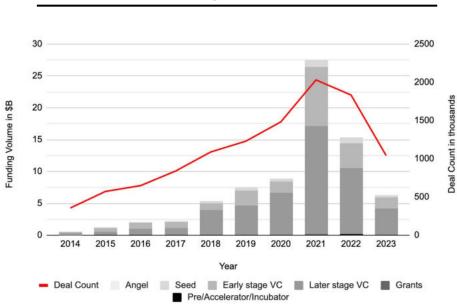


The global Food market experienced consistent growth, with revenue increasing from \$6.77 tn in 2014 to reach \$12 tn by 2027, indicating significant industry growth over this period.

Food Delivery startups have driven funding over recent years with the hype now spreading to India and SEA

Annual funding FoodTech

Total funding & deals, 2014-2023



Take-aways

- \$77.3 billion were invested in the FoodTech sector in 11,128 deals over the last 10 years.
- Since our last analysis in October, \$762
 million in additional capital in 235 rounds
 flowed into the sector.
- Venture activity in the sector has taken a hit and is down 77% from its high in 2021. Most notably, Getir had a downround slashing its valuation by 4x.

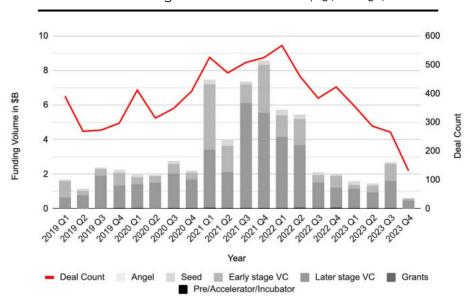
Notable Investors

- **Corporates:** Delivery Hero, DoorDash, Just eat Takeaway.com, Uber, Alibaba, Tencent
- **VC-Funds:** SOSV, FJ Labs, Alumni Ventures, 10X Capital, Kima Ventures, Atlantic Food Labs
- Government Investors: EIT Food, Innovate UK, US Department of Agriculture, European Union

Food although a huge market opportunity seems to lack funding for innovative solutions

Quarterly funding FoodTech

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



Take-aways

- 2023 saw \$6.35 billion invested in 1.042 funding rounds. In Q4 the number of rounds dropped by 50% and funding volume has seen the lowest quarter in the last 5 years.
- Notably, median deal sizes have been ranging from \$1.10 - \$1.50 million, in Q4 2023 the median deal size was \$1.50 million.
- The highest median post valuation can be observed in Q1 2023 sitting at \$20 million.
 Median Post Valuations have been ranging between \$10.35 - \$20 million.

Top Investors 2023

- Corporates: ProSiebenSat.1 (3), Nestlé (2), Warsteiner (2), Alibaba (1), Amazon (1), BASF (1), Anheuser-Busch (1), Chipotle (1), Danone (1)
- VC-Funds: SOSV (14), 500 Global (10), Big Idea Ventures (8), FJ Labs (8), Hiventures (7), 10X Capital (5), Antler (5), Atlantic Food Labs (5), Gaingels (5), SFC Capital (5), Alumni Ventures (4)

Top Funding rounds in FoodTech in 2023

Business Description

Investors

Round



Developer of a versatile online marketplace app for grocery and product delivery, offering secure mobile payments for convenient home shopping.

Abu Dhabi Growth Fund, A* Capital, Alpha Wave Global, Atlantic Food Labs and others

\$500.00M Later Stage VC



Operator of an **online grocery company** intended to **deliver groceries** to the **doorstep within a short time.** The company focuses on **delivering a range of prepared food** items, including hot beverages and snacks.

SoftBank, Soma Capital, Rocket Internet, Global Founders Capital, Contrary and others

\$231.25M Series F



Operator of a **Food Processing Company specialized in producing nutritious meal replacement drinks** that offer a **healthy alternative to junk food,** providing consumers with sustained energy throughout the day.

Nestlé, New Ground Ventures, Felix Capital, Five Season Ventures and others

\$230.32M Later Stage VC



Specializes in producing sustainable plant-based food products, like minimally processed fungi-based steaks, free from common allergens, offering vegan-friendly choices as meat alternatives.

Chipotle Mexican Grill, CPP Investments, Golden Angel Investors

\$200.00M Series C



Provider of **grocery delivery services** intended to **supply groceries directly to homes** within ten minutes and at supermarket prices. The company's **application offers a wide selection of convenience items** like fresh herbs. fruits, bread, essentials, and home supplies.

DoorDash, Rewe, Cherry Ventures, Accel Insight Partners, Target Global, BOND Capital and others

\$164.41M Series C

Ingredient Werks

Search Field	Molecular Farming
Location	Woburn, USA
Year Founded	2022
Total Funding	\$0.75M (Series A)
Last Round	Undisclosed (07/2023)
Investor	JetBlue Ventures, Sandbox Industries and others
Website	ingredientwerks.com

Ingredient

Molecular Farming

Business Overview

• Molecular farming company, that is dedicated to enhancing the taste and quality of plant-based foods. Ingredient Werks boosts plant protein production for sustainable food ingredient creation, offering clients cost-effective, high-quality solutions for the fast-growing alternative protein market.

Use case & customers

• Enhancing nutrition, taste, and cost-efficiency in plant-based foods while reducing greenhouse gas emissions through crop-based protein production infrastructure design.

Similar Companies

- Plantible (2016, Series A (\$44.44M), Piva Capital and others)
- Merit Functional Food (2019, Debt (\$97.13M), Burcon Nutrascience)

Business Overview

• The company employs genetically modified plants as efficient bioreactors for simultaneous therapeutic protein production and antigenic sugar removal through co-expressed enzymes, resulting in reduced production costs and improved accessibility to essential biotech products.

Use case & customers

- Sustainable and cost-effective production of cultivated meat
- Addressing the impending shortage of traditional meat supply due to population growth and resource limitations.

Similar Companies

- Tiamat Sciences (2019, Seed (\$5.49M), True Ventures and others)
- Roslin Technologies (2017, Series A (\$19.05M), Kickstart Ventures and others)

Alternative

Proteins

BioBetter

Search Field	Protein Manufacturing
Location	Kiryat Shmona, Israel
Year Founded	2015
Total Funding	\$16.96M (Later Stage VC)
Last Round	Undisclosed (09/2023)
Investor	EIT Food, Jerusalem Venture Partners and others
Website	<u>biobetter.bio</u>

Invisible Foods

Search Field	Waste Management Platform
Location	Barendrecht, Netherlands
Year Founded	2020
Total Funding	Undisclosed (Early Stage VC)
Last Round	Undisclosed
Investors	Stitching DOEN, Rockstart
Website	<u>invisiblefoods.io</u>

INVISIBLE FO ODS

Surplus & Waste Mgmt

Business Overview

 Building a matching app that will enable fruit & veg wholesalers to identify the exact quality of their food 'waste' products - fruit & veg that isn't pretty enough for retail - and will allow them to redistribute these to alternative markets; e.g. companies that manufacture frozen, dried, or liquid food.

Use case & customers

- The platform includes a quality control and analytics system based on computer vision that identifies food that will rot soon
- Currently they are running a pilot with one of the largest global food retailers

Similar Companies

- Fazla (2016, \$13.46M (Later Stage VC), Atlantic Food Labs, Techstars, EIT Food, and others)
- Generation Waste (2017, \$1.02M (Pre-Seed), Sätila Holding, GU Ventures, and others)

_ Business Overview

 Kitocoat is dedicated to reducing food waste by enhancing the shelf life of fruits and vegetables with their biodegradable and edible KITOCOAT product.

They are using layers of ships and derived.

 They are using layers of chitosan derived from chitin to extend the shelf life of fruits and vegetables.

Use case & customers

 Enhancing the shelf life and freshness of fruits and vegetables by utilizing a natural, edible barrier inspired by the protective exoskeleton of crustacean animals, reducing food waste and plastic packaging need

Similar Companies

- Nabaco (2018, Seed (\$7.54M), Alsop Louie Partners, Ecliptic Capital and others)
- Liquid Seal (2005, Undisclosed)

••••



Edible Fruit

Coating

Search Field Surplus and Waste Management Location Stockholm, Sweden Year Founded 2021 Total Funding \$0.26M (Pre-Seed) Last Round \$0.13M (10/2023) Investor KTH Holding Website

HealthTech

The global digital health market is experiencing a significant growth of 18% between 2017 - 2027

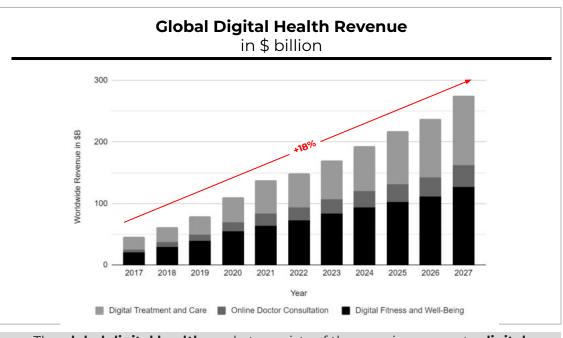


The global **Digital Health** market
generated **\$148.40B** in
2022 worldwide



The global Digital Health market is expected to grow at a **CAGR of 18%** (2022-2027).

The global **digital health market** is experiencing **significant growth** due to the **growing demand** for innovative health solutions.

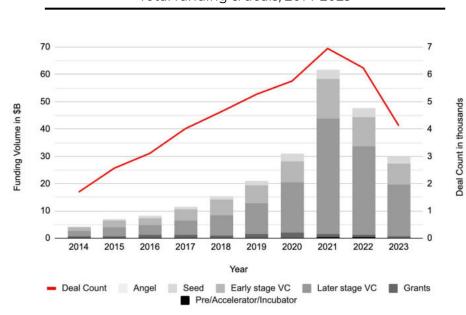


The **global digital health** market consists of three main segments: **digital treatment** and **care**, **online** doctor **consultation** and **digital fitness** and well-being

A return to healthy valuations is in sight for HealthTech startups

Annual funding HealthTech

Total funding & deals, 2014-2023



Take-aways

- Over \$238.3 billion were invested in the HealthTech sector in 44,341 deals over the last 10 years.
- Since our last analysis in November, \$2.06
 billion in additional capital in 363 rounds
 flowed into the sector.
- Venture activity in the sector has remained elevated compared to other sectors being down 52% from its high in 2021.

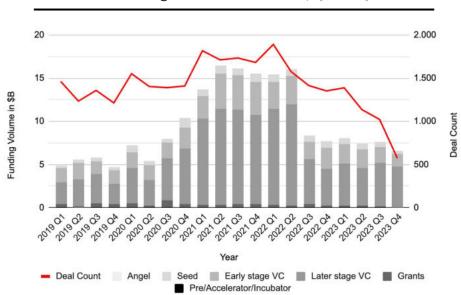
Notable Investors

- Corporates: Merck, Johnson & Johnson, Novartis, Amazon, Optum, Google, Samsung
- **VC-Funds:** HTGF, Alumni Ventures, Khosla Ventures, Founders Fund, Andreessen Horowitz
- Government Investors: Innovate UK, National Science Foundation, NIH, EIT Health

Despite the sharp drop in H2/22, HealthTech has attracted significant investments outpacing most other sectors

Quarterly funding HealthTech

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



Take-aways

- 2023 saw \$29.77 billion invested in 4.120 funding rounds. In Q4 the number of rounds dropped by 44% but funding volume has been around \$7.00 \$8.00 billion as in previous Qs.
- Notably, median deal sizes have been ranging from \$1.35 - \$2.00 million, in Q4 2023 the median deal size was \$2.97 million.
- The highest median post valuation can be observed in Q4 2023 sitting at \$30.74 million.
 Median Post Valuations have been ranging between \$12 - \$19.5 million.

Top Investors 2023

- Corporates: Google (12), Johnson & Johnson (11), CVS Health Ventures (9), Bertelsmann Investments (6), Healthworx (6), Merck (6)
- VC-Funds: Alumni Ventures (31), SOSV (25), Gershon Capital (23), Capital Factory (20), Enterprise Ireland (19), General Catalyst (19), Andreessen Horowitz (16), StartUp Health (15)

Top Funding rounds in HealthTech in 2023

Business Description

Investors

Round



Developer of a **cloud-based interoperable platform** focused on **accelerating healthcare software** innovation. The company's platform **unifies disparate datasets**, **surfaces meaningful insights**, and enables seamless innovation across the healthcare industry.

General Catalyst, AIX Ventures, 8VC, Toba Capital, Lux Capital, Designer Fund, and others

\$1.32BLater Stage VC



Developer of an **online drug delivery platform** designed to improve the **supply chain of pharmaceuticals** by completely **digitizing the process.** The company's application **sells medicines and healthcare products** and aids in **connecting with local pharmacy stores** and diagnostic centers.

Tiger Global Management, B Capital Group, Temasek, Bessemer Venture Partners, General Atlantic and others

\$420.59M Series A



Provider of an **automated drone delivery service** intended for the **distribution of blood** and other **medical supplies.** The company leverages **proprietary fixed-wing drones** to **facilitate deliveries** of vaccines and medicines to hospitals and health centers.

CVS Health, Pura Vida Investments, Humana, Correlation Ventures, Sequoia Capital and others

\$375.00M Series C



Neuralink develops **implantable brain-machine interfaces (BMIs).** These interfaces aim to **help humans merge with artificial intelligence**, treat **neurological disorders**, and enable direct communication between computers and the brain.

Alphabet, Founders Fund, Sam Altman, Founders Fund, GigaFund, Craft Ventures and others

\$323.24MSeries D



Provider of value-based care-focused healthcare services intended to serve the wellness challenges in rural America.

Centene, Humana, UnitedHealth Group, HLM Ventures, Echo Health Ventures, and others

\$315.00M Early Stage VC

DDHT

Diagnostics & Screening

Digital Dental & Healthcare Technology

Search Field	Dental implantology
Location	Grünwald, Germany
Year Founded	2020
Total Funding	Undisclosed
Last Round	Undisclosed
Investor	Bavarian Innovation Fund
Website	<u>ddht.de</u>

Business Overview

 Providing essential software and hardware tools for daily dental practice, DDHT specializes in an ultrasonic device for precise jawbone quality examinations, ensuring successful implantology outcomes and aiding in the detection of FDOJ´s.

Use case & customers

 Tailored for holistic dentists and implantologists, DDHT offers cutting-edge technology, like our ultrasonic device, for detecting silent inflammations and assessing jawbone quality, ensuring comprehensive patient care.

Similar Companies

- **Qikserve** (2011, Later Stage (\$12.33M), Par Equity and others)
- Aliments (2018, Undisclosed)

_ Business Overview

 A pioneer in non-invasive colorectal cancer detection, this company offers a groundbreaking virtual endoscopy system, revolutionizing early diagnosis and treatment, without the need for laxatives.

Use case & customers

 Their innovative technology empowers healthcare providers to identify and address colorectal cancer in its early stages, enhancing patient outcomes and survival rates.

Similar Companies

- Oncobit (2018, Early Stage VC (\$3.85M), Avanteca Partners and others)
- Soar BioDynamics (2005, Corporate (\$1.00M), Originate)

Boston Medical Sciences

Search Field	Medical Image Analysis
Location	Tokyo, Japan
Year Founded	2023
Total Funding	\$2.70M (Seed)
Last Round	\$2.70M (10/2023)
Investors	Beyond Next Ventures, NEDO Entrepreneurs Program
Website	<u>b-ms.tech</u>

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Diagnostics &

Screening



Asepha

, isopila	
Search Field	Medical Database, Context Based Analysis, Health Data
Location	Toronto, Canada
Year Founded	2023
Total Funding	\$0.12M (Accelerator)
Last Round	\$0.12M (07/2023)
Investors	Techstars, Ripple Ventures
Website	asepha.ai



Al in Healthcare

Business Overview

 Asepha is building an Al-enabled clinical decision support (CDS) tool, leveraging disparate datasets of research, trials, and healthcare data mapped through their own LLM to help healthcare professionals provide better care.

Use case & customers

 Asepha's Al-driven platform utilizes a proprietary algorithm, employing multi-dimensional, context-based analysis to process extensive patient-specific data sourced from trusted medical databases.

Similar Companies

- Inference Analytics (2016, Seed (\$2.62M), Bold Brain Ventures and Angel Investors)
- **HiLabs** (2014, Series A (\$1.91M), Season Two Ventures and Angel Investors)

Business Overview

 Diffuse Bio, uses AI to innovate in protein design, drawing inspiration from image-generating AI tools like DALL-E.

 Their advancements allow for the rapid creation of novel proteins, potentially leading to solutions for major health challenges like cancer and viral diseases.

Use case & customers

 Diffuse Bio offers an Al-software platform for drug design and experimental validation of Al-generated proteins and diffusion models for protein structure and sequences.

Similar Companies

- **Biomatter** (2018, Seed (\$0.61M), Sofigama, Practica Capital, 70Ventures and others)
- Evozyne (2019, Series B (\$135.18M), NVIDIA, nVentures, Fidelity and others)

Diffuse Bio

Dilluse Bio	
Search Field	Drug Design, Drug Research, Generative Al
Location	Mountain View, USA
Year Founded	2022
Total Funding	\$Undisclosed (Early Stage VC)
Last Round	\$0.50M (10/2023)
Investors	Y Combinator, Fellows.Fund
Website	<u>diffuse.bio</u>

Al in Healthcare



Logistics & Supply Chain

Asia Pacific region with the largest market and a constant growth rate throughout the global market

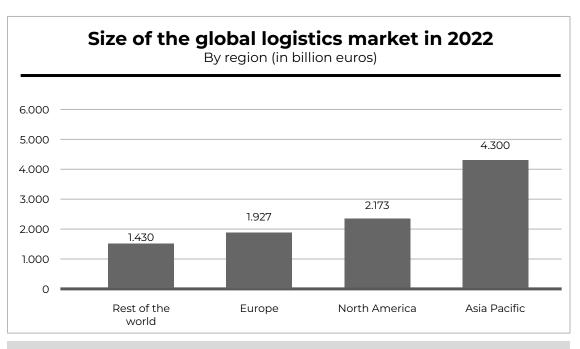


The global **logistics & supply chain** market reached **9.83 trillion dollars** in 2022.



The global logistics market is expected to grow at a **CAGR of 5.6%** (2022-2027).

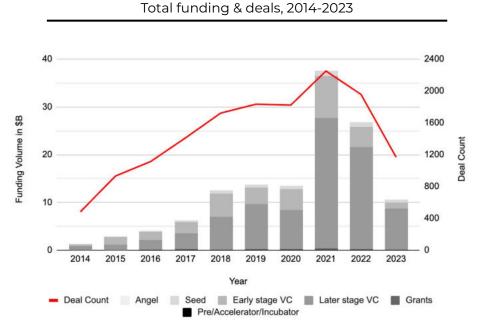
The market of international logistics is having a **significant growth** with growing demand for complex logistics solutions around the globe.



The **Asia-Pacific** region is contributing significantly in terms of revenue to the logistics market share. **North America** places second and Europe completes the trio of the largest logistics & supply chain markets.

Accelerated rise of new technologies, sustainability policies, and changing consumer preferences are driving the market

Annual funding Logistics & Supply Chain



Take-aways

- Over \$129.7 billion were invested in the Logistics & Supply Chain sector in 14,692 deals over the last 10 years.
- Since our last analysis in August, \$2.7
 billion in additional capital in 400 rounds flowed into the sector.
- Ongoing supply chain issues have hit the sector hard and VC activity has been down over 70% from its high in 2021.

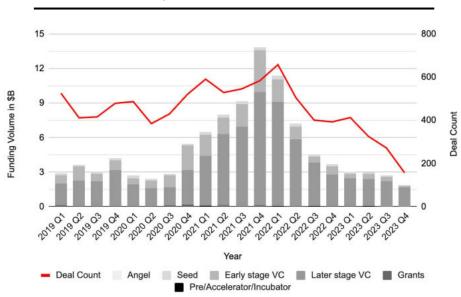
Notable Investors

- Corporates: Alibaba, Kühne + Nagel, Intel, Continental, FedEx, DB Schenker, GE, Sony
- VC-Funds: Tiger Global Management, FJ Labs, SOSV, Accel, Alumni Ventures, Sequoia Capital
- Government Investors: Innovate UK, National Science Foundation, US Department of Commerce

The Logistics & Supply Chain venture market is strongly affected by the slump in the global funding environment

Quarterly funding Logistics & Supply Chain





Take-aways

- 2023 saw \$10.61 billion invested in 1.168 funding rounds. In Q4 the number of rounds dropped by 42% and funding volume has been on an exponential decrease since Q4 2021.
- Notably, median deal sizes have been ranging from \$2.30 - \$4.50 million, in Q4 2023 the median deal size was \$3.15 million.
- The highest median post valuation can be observed in Q4 2023 sitting at \$36 million.
 Median Post Valuations have been ranging between \$23.5 - \$47 million.

Top Investors 2023

- Corporates: Prologis Ventures (4), SMBC (4), Alibaba (3), Leaps by Bayer (3), Toyota (3), Airbus (2), bp (2), Google (2), Siemens (2), Qualcomm (2)
- VC-Funds: FJ Labs (14), Antler (10), 500 Global (8), Inflection Point Ventures (7), East Ventures (6), Serra Ventures (6), Sprint VC (6), Alumni Ventures (5), B Capital Group (5), Blume Ventures (5)

Top Funding rounds in Logistics & Supply Chain in 2023

Business Description

Investors

Round



The company's vehicles are based on autonomous, all-electric technology, coordinated by intelligent routing software that integrates customer data and traffic data to optimize delivery time, battery life, and energy consumption.

Zigg Capital, Slow Ventures, Halogen Ventures, Silver Lake, Karman Ventures and others

\$500.00MSeries C



Developer of an **online drug delivery platform** designed to improve the **supply chain of pharmaceuticals** by completely **digitizing the process.**The company's application **sells medicines and healthcare products** and aids in **connecting with local pharmacy stores** and diagnostic centers.

Tiger Global Management, B Capital Group, Temasek, Bessemer Venture Partners, General Atlantic and others

\$420.59M Series A



Provider of an **automated drone delivery service** intended for the **distribution of blood** and other **medical supplies.** The company leverages **proprietary fixed-wing drones** to **facilitate deliveries** of vaccines and medicines to hospitals and health centers.

Andreessen Horowitz, Temasek, Toyota, GV, Sequoia Capital, UPS and others

\$330.00M Series F



Provider of **grocery delivery services** intended to **supply groceries directly to homes** within ten minutes and at supermarket prices. The company's **application offers a wide selection of convenience items** like fresh herbs, fruits, bread, essentials, and home supplies.

DoorDash, Rewe, Cherry Ventures, Accel Insight Partners, Target Global, BOND Capital and others

\$164.41MSeries C



Operator of an **online grocery platform** intended to **facilitate doorstep deliveries** of groceries and other home essentials. The company's **platform** offers a **wide assortment of groceries,** fruits and vegetables, cosmetics, electronics, and more **for delivery.**

Al Jammaz Group, Al-Jasser Holding, Watar Partners, Wamda Capital, STV and others

\$133.00M Series C

QDelivery	
Search Field	Smart Delivery Platform, Cloud-based Delivery
Location	Berlin, Germany
Year Founded	2021
Total Funding	Undisclosed (Accelerator)
Last Round	Undisclosed (09/2022)
Investors	idacapital
Website	<u>qdelivery.app</u>

Delivery **Platform**

Business Overview

- Offers a last mile delivery platform to manage & analyze local delivery operations
- The platform includes a web dashboard for dispatchers, an app for couriers, and automatic notifications, and real-time tracking for recipients

Use case & partners

- Business partners include **Delivery Hero**, McDonald's and Shopify
- Retailers use QDelivery to **define** their retail outlet, assign a courier team, and automatically match the fastest and most available courier in the field with their package

Similar Companies

- ShipJunction (2010, Unfunded)
- **Urbify** (2019, Early Stage VC (\$2.45M), Martian & Machine, Ralf Huep)

Business Overview

- Developed a freight management system, to rethink intermodal transport, and to seamlessly connect land transport modes and make transport options comparable
- The route algorithm calculates all transport routes and displays free capacities, prices, transport times and CO2 savings potential.

Use case & partners

• The platform delivers transparency for freight forwarders and shipping companies and their multimodal transport chains can reduce CO₂ emissions by up to 90 percent and cut freight costs by around 15 percent.

Similar Companies

- Project44 (2014, Series F (\$947.64M), Insight Partner, SVB, 8VC and others)
- Four Kites (2013, Secondary Transaction (Undisclosed), Basil Capital)

Freight

Forwarding

Rouvia

Rodvia	
Search Field	Intermodal Transport, Freight Forwarding System
Location	Berlin, Germany
Year Founded	2021
Total Funding	\$2.96M (Seed)
Last Round	\$2.96M (11/2022)
Investors	Cavalry Ventures, Prequel Ventures, Entrepreneur First, Rail Cargo Austria, etc.
Website	<u>rouvia.com</u>

Warehousing1

Search Field	Warehousing marketplace
Location	Berlin, GER
Year Founded	2018
Total Funding	\$11.01M (Series A)
Last Round	\$11.01M (04/2022)
Investors	Holtzbrinck Ventures, Discovery Ventures, Basel0 Partners
Website	warehousing1.com

WAREHOUSING1

Warehousing

Business Overview

- Tech enabled fulfillment, distribution & warehousing service provider
- On-demand warehousing by variable network, centralized data visibility and flexible cost optimization
- Warehouse-as-a-Service
- Over 500 partner locations Europe and the US

Use case & customers

- Al-based software identifies best suited service provider from the network
- Customers include Unilever and Samsung
- Ecommerce logistic, flexible warehousing, contract logistics

Similar Companies

- Waresix (Jakarta, 2017, Series B \$127M)
- Hive Logistics (Berlin, 2020, Seed -(undisclosed) Picus Capital)

Business Overview

• Developer of AI and cloud-based intralogistics automation software

• Develops software for the control of automated trucks, forklifts, robotics and autonomous systems to enable planning, management, and connectivity of warehouse logistics

Use case & customers

- Plans to be the **operating system** for autonomous transportation, machines and other equipment within warehouses
- Volkswagen as customer

Similar Companies

- 6River Systems (Boston, 2015, acquired at \$47M)
- IAM Robotics (Pittsburgh, 2012, Series B -§20,5M

Svnaos

-,	
Search Field	AI & Cloud-based warehouse automation
Location	Hannover, GER
Year Founded	2018
Total Funding	\$6.83M Series A
Last Round	\$6.83Mn (12/2018)
Investors	Volksbank Braunschweig
Website	synaos.com

SYNAOS

Warehousing





Mobility

Worldwide, we are already seeing broad adoption of electric vehicles in most major markets



The global **mobility** market reached **\$5.1 trillion dollars** in 2021.

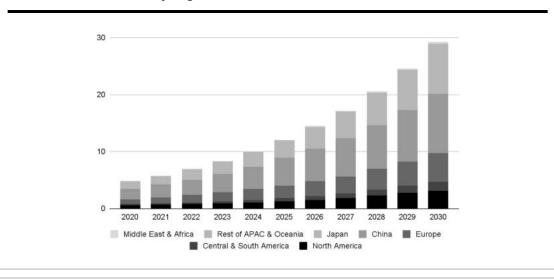


The global mobility market is expected to grow at a **CAGR of 4.0%** (2021-2030).

Most of that **growth** will come **from emerging profit pools**. At the same time, **ICE-powered vehicles** and associated services will actually **contract about 17%.**

Global Electric Car Sales Forecast

by region in million units, 2020 - 2030

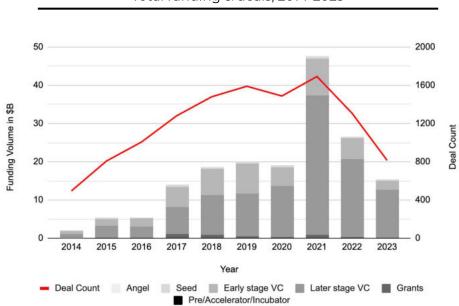


EV sales continue **accelerating** over the coming decade from **5 million units** to close to 30 million in 2030, while ICE sales will slow down. **China** constantly holds a **35%+ share** majority of EV market sales, **Europe around 18%** and the US 10%.

Hype for autonomous vehicles and micromobility service providers drove market funding higher in 2021

Annual funding Mobility





Take-aways

- Over \$174 billion were invested in the Mobility sector in 11,964 deals over the last 10 years.
- Venture activity in Mobility is down quite a bit, dropping 67% from its peak in 2021.
 There is a shift away from mega-deals in the autonomous vehicles segment in 2021, to VCs focusing on EVs and energy storage.
- Micromobility providers also had it rough this past year.

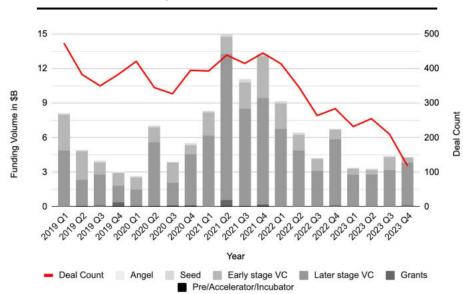
Notable Investors

- Corporates: Hyundai, BMW, VW., Continental, Bosch, Shell, Uber, Google, Intel, Ford, Toyota
- VC-Funds: Tiger Global Management, Alumni Ventures, Accel, Sequoia Capital, SoftBank
- Government Investors: EIT InnoEnergy, EIT Climate-KIC, Innovate UK, EIC Fund

New regulation and policies are leading the push into sustainability and elevated investments in the EV segment

Quarterly funding Mobility

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



Take-aways

- 2023 saw \$15.38 billion invested in 815 funding rounds. In Q4 the number of rounds dropped by 43% but funding volume has been on the rise since Q3 2020.
- Notably, median deal sizes have been ranging from \$3.00 - \$5.00 million, however in Q4 2023 the median deal size was \$12.00 million.
- The highest median post valuation can also be observed in Q4 2023 sitting at \$47 million.
 Median Post Valuations have been ranging between \$23.5 - \$47 million.

Top Investors 2023

- Corporates: Qualcomm (5), Stellantis (5), Toyota (4), GM (4), bp (4), Jaguar Land Rover (3), Volvo (3), Chevron (2), Hyundai (2), Porsche (2), SAIC (2)
- VC-Funds: FJ Labs (7), Sprint VC (6), Trucks VC (6), Alumni Ventures (5), Blume Ventures (5), Proeza Ventures (5), Antler (4), Aster Capital (4), Automotive Ventures (4), Blackhorn Ventures (4)

Top Funding rounds in Mobility in 2023

Business Description

Investors

Round



Developer of a **computer vision-based operating system** designed to modernize **parking** and facilitate the **future of mobility.** The company's system builds a **modern mobility commerce infrastructure** that improves **revenue generation** and reduces operating expenses.

Zigg Capital, Slow Ventures, Halogen Ventures, Silver Lake, Karman Ventures and others

\$1.70BSeries C



The company's platform offers management of in-vehicle concierge, infotainment management services, passenger mobility applications, and operational asset management for the next generation of zero-emission driverless shuttles.

Innovate UK, Wayra, BetaDen, JPIN, EIT Climate-KIC, and others

\$631.58MSeries A



The company's vehicles are based on **autonomous**, **all-electric technology**, coordinated by **intelligent routing software** that integrates **customer data and traffic data** to **optimize delivery time**, battery life, and **energy consumption**.

EQT Ventures, Ericsson Ventures, Norrsken VC, Soros Fund Management, KI Capital and others

\$500.00MSeries C

CARRO

The company's platform uses a mix of human expertise and proprietary pricing algorithms to inspect and evaluate vehicles, giving buyers and sellers a pricing system, and transactional framework and also assisting with the transfer of vehicle ownership.

SoftBank, Mitsubishi, Temasek, One Hill Capital, Golden Gate Ventures, Coffee Ventures and others

\$463.61MLater Stage VC



Developer and manufacturer of **transformative battery technology** intended to **improve energy density and safety** while **lowering costs** for **mobility** and **grid storage applications**. The company uses a **dual-chemistry design** to deliver transformative power solutions.

Breakthrough Energy, Temasek, Franklin Templeton, Coatue Management and others

\$300.00M Series B



Training Data

Tactile Mobility

cle Road Dynamics Data
a, Israel
DOM (Series C)
DOM (10/2021)
che Ventures, Startup bahn, The Group Ventures
lemobility.com

Business Overview

- Creates a digital twin of each vehicle, clarifying vehicle **health** & **efficiency** including: grip level. braking efficiency, tire health, weight estimation. fuel consumption, engine & more
- Datasets from each vehicle are uploaded to the cloud and continuously crunched, using big data methodologies and machine learning

Use case & customers

- Use cases in vehicles, insurance & suppliers
- Tactile Mobility's data is used in more than 67 cities around the world
- Partners include **Porsche & BMW** to integrate Tactile Mobility's solution into their vehicles

Similar Companies

- RoadCloud (2014, Seed (\$1,40M), Business Finland. Icebreaker)
- Annotell (2018, Series A (\$8.16M), MobilityXlab, Stena Sessan)

• Provides a **3D environment** generation software offering configurable, detailed & scalable simulation environments for autonomous vehicle simulation • Enables users to plug content into simulation

solutions to generate entirely new cities or tweak details on single city street corners

Use case & partners

- Used in ADAS solutions. Level 4 & 5 of autonomous driving & object tracking • Composed of veterans from the world's top graphics & Al companies, such as Apple, Pixar,
- and Microsoft • Partners include Toyota Research Institute

Similar Companies

- Scale (2016, Series E (\$325.00M), Accel, Index Ventures, Y Combinator)
- Samasource (2008, Series A (\$14.80M), Salesforce Ventures, Ridge Ventures)

Parallel Domain	
Search Field	Al-enabled Simulation Software
Location	Palo Alto, US
Year Founded	2017
Total Funding	\$43.50M (Later Stage VC)
Last Round	\$30.00M (10/2020)
Investors	Toyota Al Ventures, Foundry Group, Calibrate Ventures, RRE Ventures, Costanoa Ventures
Website	paralleldomain.com

Training Data



Business Overview

• Develops advanced battery charging technology to enable electric vehicles to charge in minutes (ultra-fast charging)

- Uses AI-based software algorithms and electronics to optimize charging system in vehicles
- Goal is to accelerate adoption of EVs

Use case & partners

- Customers are leading automotive and electronics manufactures
- Technology can be applied to vehicles, drones, electric tools and similar

Similar Companies

- Chargefox (2017, Series A (\$8.00M), Renewable Energy Agency, Greg Roebuck)
- CaCharge (2015, Series A (\$2.50M), EIT InnoEnergy)

GBatteries

Search Field	Charging Optimization
Location	Ottawa, CA
Year Founded	2012
Total Funding	\$3.90M (Grant)
Last Round	\$3.00M (02/2020)
Investor	Airbus Ventures, Y Combinator, BDC, Plug and Play, MobilityXlab, 10x Group
Website	<u>gbatteries.com</u>

Virta

Search Field	Charging Station Management
Location	Helsinki, FIN
Year Founded	2013
Total Funding	\$140.57M (Series C)
Last Round	\$93.00M (04/2023)
Investors	Jolt Capital, E.ON, Helen Ventures, JXTG Group
Website	<u>virta.global</u>

Business Overview

Charging

Solution

- Cloud-based management solution for EV charging stations
- Provides whitelabel solution that **connects EV** drivers, charging points, and energy system in a scalable ecosystem
- Features include cloud-connected charging devices, automated billing, energy mgmt etc.

Use case & partners

- Named **fastest growing startup** twice in a row by Financial Times
- Service for consumers and businesses
- Helps **E.ON** to make **charging stations available** to EV users across Europe

Similar Companies

- EV Connect (2009, Series B (\$25.00M), Mitsui, Plug and Play)
- Greenflux (2011, Series B (\$13.00M), ICT, BOM)

Charging

Solution



Robotics & Drones

Compared to the overall Robotics market, the robotics software market is expected to grow at 45.7%

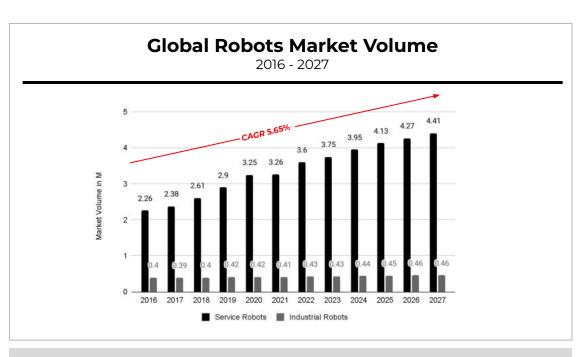


The global **robotics** market reached **78.8 billion dollars** in 2022.



The global robotics market is expected to grow at a **CAGR of 13.7%** (2022-2030).

The market of global robotics is showing **significant growth** with growing demand for complex robotics solutions around the globe.

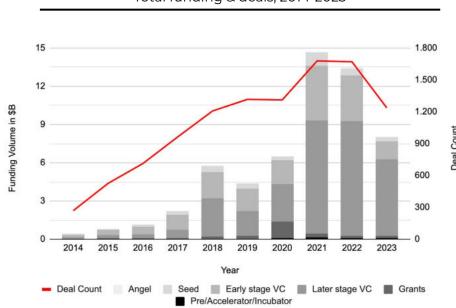


The global robotics market is **facing significant growth** due to a **growing demand** for **complex automation & safety** solutions, **availability** of **affordable** & **energy efficient robots** and the stable **increase in labor & energy costs**

Everything around you will become a robot - Autonomous Vehicles have marked a shift in the robotics sector in 2018

Annual funding Robotics

Total funding & deals, 2014-2023



Take-aways

- Over \$57.5 billion were invested in the Robotics sector in 10,890 deals over the last 10 years.
- Since our last analysis in September, \$2.5
 billion in additional capital in almost 400
 rounds flowed into the sector.
- Compared to many other sectors, venture activity in Robotics has fared quite well only dropping 45% from its peak in 2021.

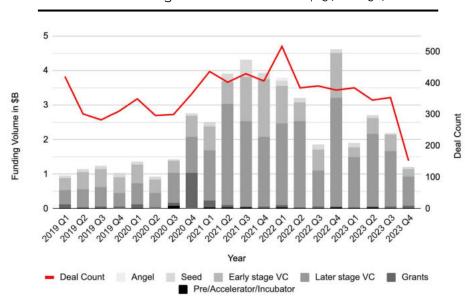
Notable Investors

- Corporates: Lenovo Capital, Baidu, Toyota, GV, Intel Capital, ABB, Airbus, Qualcomm, Xiaomi
- VC-Funds: Plug & Play Tech Center, SOSV, Alumni Ventures, a16z, Founders Fund, HTGF
- Government Investors: National Science Foundation, Innovate UK, US DoD, ESA

Defense & Logistics use cases have driven Robotics investments in recent quarters

Quarterly funding Robotics

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



Take-aways

- 2023 saw \$8.03 billion invested in 1.238 funding rounds. In Q4 the number of rounds dropped by 50% and funding volume hasn't been this low since Q3 2020.
- Notably, median deal sizes have been ranging from \$1.5 - \$2.5 million, however in Q4 2023 the median deal size was \$4.1 million.
- The highest median post valuation can also be observed in Q4 2023 sitting at \$35 million.
 Median Post Valuations have been ranging between \$17.5 - \$35 million.

Top Investors 2023

- Corporates: Lockheed Martin (5), Baidu (4), Airbus (3), Google (3), Intel (3), Lenovo (3), Xiaomi (3), Siemens (2), Toyota (2), Sony (2)
- VC-Funds: SOSV (11), Qiming Venture Partners (8), Alumni Ventures (6), 10X Capital (4), HongShan (4), Alley Robotics Ventures (4), Verve Ventures (4), Matrix Partners (4), HTGF (3)

Top Funding rounds in Robotics in 2023

Business Description

Investors

Round





Provider of an **automated drone delivery service** intended for the **distribution of blood** and other **medical supplies.** The company leverages **proprietary fixed-wing drones** to **facilitate deliveries** of vaccines and medicines to hospitals and health centers.

Andreessen Horowitz, Temasek, Toyota, GV, Sequoia Capital, UPS and others

\$330.00M Series F

Developer of **Al-powered drones** that use an array of cameras and **proprietary computer vision technology** to recognize, **avoid objects** in real-time, and predict the future to **make intelligent decisions.**

In-Q-Tel, Lockheed Martin Ventures, Next47, Accel, Andreessen Horowitz and others

\$230.00M Series F



Developer of an **Al-based drone technology** for **autonomous systems** that enhance mission capabilities, from room clearance to **air defense penetration**, using **integrated Al frameworks** and data management, speeding up product development workflows.

10X Capital, Point72 Ventures, Andreessen Horowitz, Founder Collective, and others

\$200.00M Series F



The company's **online remote control robotics** technology transmits, accumulates, and analyzes visual and auditory to tactile information, **enabling users to act freely in remote environments** and expanding the presence of human beings.

SoftBank, Airbus Ventures, JTB Group, University of Tokyo, Globis Capital Partners, and others

\$170.00M Series B



Developing and providing affordable surgical robotic systems that expand the scope of minimally invasive surgeries, aiming to make advanced healthcare accessible to a broader patient population while generating revenue primarily from system sales and associated services.

SoftBank, Tencent, GE Healthcare, ABB, Cambridge Innovation Capital. and others

\$165.00M Later Stage VC

Filics GmbH Search Field Intralogistics Pallet Handling Location Munich, DE **Year Founded** 2019 **Total Funding** Undisclosed **Last Round** Seed (07/2023)

Capnamic, 10XFounders, Bayern

Kapital. Business Angels

Logistics

Business Overview

Investors

Website

- New generation of autonomous mobile robots (AMR) for intralogistics
- Improves multiple processes significantly
- Fast scaling through modular approach & HaaS business model

Use case & customers

- Every company that produces or moves physical products is a pot. customer
- All horizontal pallet movements incl.:
- Block-storage densification (up to 70 %)
- 100% auton. truck (un)loading (12x faster

Similar Companies

- Agilox (2017, PE (Undisclosed) Raiffeisen OÖ Invest. Carlyle)
- Kiva Systems (2012, Acquired (\$678.00M). Amazon)

Business Overview

- Provide semi-autonomous. human monitored delivery robots as a service for on-demand urban logistics
- The trike sized robots are electrically powered and can carry a 100 kg payload, go up to 20 km/h and have a range of 135 km

Use case & customers

- The company is actively looking for pilot projects and customers and has already deployed their robots on various campuses in Berlin for last mile deliveries
- The robots can also be used for same-day deliveries

Similar Companies

- Alpha Asimov Robots (2021, Grant (Undisclosed), Qualcomm, Touchstone Partners)
- Nuro (2016, Secondary Transaction (\$2.13B), GV, Softbank, Greylock Partners and others)

ineo	
Search Field	Urban Logistics, Contactless Delivery, Bot-as-a-Service
Location	Berlin, DE
Year Founded	2021
Total Funding	\$0.11M (Accelerator/Incubator)
Last Round	\$5.95K (04/2021)
Investors	Entrepreneur First, EIT KIC Urban Mobility
Website	<u>heytheo.co</u>

Logistics



ARX Landsysteme

Search Field	Aerospace and Defense
Location	Munich, DE
Year Founded	2021
Total Funding	\$1.24M (Seed)
Last Round	\$1.24M (09/2023)
Investors	Project A Ventures
Website	arx-landsysteme.de

ARX

Defense

Business Overview

 Defense technology systems manufacturer specialized in creating autonomous unmanned systems and sensors for the European defense sector, to support NATO armies and civilian first responders in addressing critical challenges

Use case & customers

 ARX's robotics solutions find applications in military and civilian sectors, enhancing safety, productivity, and mission efficiency for Western democracies.

Similar Companies

- Rovenso (2013, Bankrupt (\$3.08M), Hax, SOSV, Venture Kick, Nivalis Group and others)
- Boston Dynamics (1992, Acquired (\$880.00M), Hyundai)

Business Overview

 Develops terrestrial robots, specializing in Atrax, an EOD robot designed to enhance safety and prevent loss of life for military and security forces by accessing tight spots, defusing IEDs, and demining areas

Use case & customers

 The robots can be used in versatile fire-fighting, for high-risk areas, facilitating efficient firefighting through multi-mission capabilities, electric power, and remote control via digital tablets

Similar Companies

- Aerodrive Engineering Services (2017, Early Stage (Undisclosed), UM6P Ventures)
- Aereo (2013, Later Stage (\$2.17M), Navam Capital and others)

Shark Robotics

Search Field	Aerospace and Defense
Location	La Rochelle, FR
Year Founded	2016
Total Funding	\$12.08M (Later Stage VC)
Last Round	\$10.49M (12/2022)
Investors	Move Capital, Ocean Participations
Website	shark-robotics.com

Defense





SUMMARY

Amidst the twists and turns of the venture capital landscape, 2023 emerged as a year unlike any other. Following a mixed 2022, some sectors faced challenges such as record-low funding, painful downrounds, and struggles to secure follow-on rounds. The global macroeconomic climate and stringent monetary policies exerted a tight grip on the VC ecosystem, with market corrections already evident. But the upcoming presidential election in the USA could cushion the market and give it a fresh boost as Biden tries to alleviate pressure on the economy in order to increase his chances to be reelected.

Early in the year, **Silicon Valley Bank's collapse** sent **shockwaves**, triggering a **rush among depositors** to salvage what they could. Simultaneously, the **IPO market hit a dry spell**, with highly anticipated offerings like **Instacart and Klaviyo trading well below** their **initial prices**, dissuading other prospective public companies from pursuing this exit route.

Just few days after the SVB collapse, **OpenAI unveiled GPT-4**, a topic widely discussed by us all. **Microsoft's** substantial **\$10 billion investment** and strong partnerships **intensified the competition among tech giants** vying for supremacy in the race to build the leading AI solution, turning **generative AI** into a **new tech frontier**.

However, **OpenAI faced challenges** on the **regulatory front** when the **Italian government imposed a month-long ban** on the use of ChatGPT **over data privacy and security concerns. Google** encountered **similar issues,** leading to the **delayed** European **launch** of its product "**Bard**."

Adding to the drama, **OpenAl's board ousted CEO Sam Altman**, only to witness a resurgence in **demand for his return from employees**, prompting a **letter to the board** calling for both **Altman's reinstatement** and the **board's resignation**.

While all that was going on, high-profile startups faced setbacks. Zume Pizza, a tech-driven pizza company, declared insolvency in June after raising a substantial \$445 million. Despite Al's previous allure, Olive AI, valued at an astonishing \$44 billion with \$900 million in funding, closed its doors. Additionally, WeWork, the real estate giant, filed for Chapter 11 bankruptcy in November.

As **WeWork filed for bankruptcy**, top investor **SoftBank** was also **not spared** from the pain of 2023, **losing \$14 billion** on the real estate giant. Although the **company could potentially continue operating** after a solid restructuring.

Amid the challenging funding environment, distressed startups became targets for specialized buyout funds like Resurge Growth, aiming to acquire and turn around companies affected by elevated interest rates and diminished valuations.

Analyzing venture activity in 2023, investments decreased by -40.3%, totaling \$308 billion across 43.000 rounds. Deal count dropped by -35.6%, with a focus on Seed and Early stages. Despite the tough climate, history reminds us that successful companies, such as Uber, WhatsApp, Airbnb, Square, and Slack, emerged during the 2008 financial crisis.

As we plan for 2024, founders must recognize the likelihood of sustained high-interest rates, ongoing political events causing market turbulence, and a stronger economy than perceived. While the venture funding ecosystem may face challenges, it is expected to ease cyclically.

Navigating the road ahead requires a strategic approach - avoid over-raising, maintain a realistic outlook, diversify financial holdings, and position your company not for today's environment but for the one it will encounter next year.

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