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RAISE

RAISE Observatory | Chronicles of Artificial Intelligence Investments

Executive Summary

This report was prepared by the UniGe team in collaboration with the RAISE partners of SPOKE 5 “Transfer of knowledge and technology”. The data used includes information provided by CB Insights under a subscription agreement with UniGe. The analyses and interpretations presented are the result of research conducted by the UniGe team, with the support and validation of the RAISE partners. This report does not constitute financial, legal, or professional advice.

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Chronicles of AI Investments

| Introduction

Overview

Objective

This report presents an investment analysis of the AI sector at both international and national levels, focusing on identifying and classifying the key companies, startups, and investors shaping the landscape of artificial intelligence development. By examining the investment flows and capital allocation on the technology, the primary objective is to build a robust knowledge base of current investment trends, enabling stakeholders to track capital movements, identify influential investors, and assess the strategic positioning of major AI players. This insight into market dynamics and emerging opportunities is informative and practical for members of the RAISE ecosystem. It offers information that can support the development of cutting-edge AI solutions, empowering them to align these solutions with investor priorities and attract funding from both national and international investors.

Furthermore, this report delves into the sectors where AI investment is most concentrated, providing a sectoral breakdown that enables a deeper understanding of where growth and innovation are likely to occur. The analysis also explores the role of venture capital, corporate investors, and government initiatives, offering a holistic view of the funding landscape.

The data underpinning this analysis is sourced from CB Insights and other reputable external platforms, ensuring the findings are grounded in up-to-date, accurate, and comprehensive information. This report combines quantitative data with qualitative insights to provide a well-rounded perspective on the evolving AI investment landscape.

Agenda

Global AI Companies Overview: This section analyses leading AI companies worldwide, examining the investments received across various industries. It highlights the market leaders and emphasises the pivotal role of key investors in shaping the global AI landscape.

The Top AI 100 in 2024: This section explores the top 100 global AI companies in 2024, focusing on the most promising and innovative firms driving the AI sector forward with cutting-edge solutions.

Insights into Italian AI Ventures: This section highlights the main Italian ventures and startups driving innovation in AI. It also identifies the major investors supporting the growth of these companies and the principal regions where startups are located.

European AI Startups: This section delves into the dynamic ecosystem of European AI startups, analysing investment trends, identifying leading players, and providing insights into the evolving landscape of AI innovation across Europe.

Sample description

Definition

The sample comprises AI companies, defined as businesses focused on developing, applying, and providing products and services powered by artificial intelligence technologies.

These companies leverage AI algorithms, machine learning models, and data-driven methodologies to solve complex problems, automate processes, enhance decision-making, and improve user experiences across diverse industries. They are distinguished by their strong commitment to research and development, a high degree of innovation, and the agility needed to adapt to evolving market needs.

Our analysis is based on a sample of **14,713 companies**, which aligns with this definition of AI company. The broad sample ensures a representative and comprehensive overview of the AI sector, reflecting emerging startups and established leaders in the field. The selected companies develop and commercialise innovative AI-based applications in various sectors, including healthcare, finance, manufacturing, software development, and robotics. They play a pivotal role in driving technological innovation and the global adoption of AI solutions. Their offerings include cross-industry applications, sector-specific products, and AI infrastructure, highlighting the breadth and adaptability of artificial intelligence across various domains.

Identification

Our methodology for company identification involved **4 steps**:

1. We thoroughly searched and assessed entities classified within the “**Artificial intelligence or AI**” within the CB Insights platform.
2. To broaden our sampling, we included **specific cohorts** of companies highlighted in curated analyses by CB Insights’ experts.
3. Additionally, we incorporated firms identified in **authoritative external reports** from institutions and consultancy firms, cross-referencing their data through the CB Insights platform.
4. Companies **lacking sufficient data** were **excluded** from the sample.

All **companies** featured in this report have been **verified and mapped using the CB Insights platform**. We excluded companies with missing relevant figures from the sample. This verification process ensures the accuracy and consistency of data. From their **inception**, we collected **all available funding round** data from the CB Insights platform for the 14,713 companies. The data spans from January 1995 to September 2024 and was last updated on 19th September 2024.

Sample(s)

The main sample
14,713 companies

Top 100 AI companies in 2024
100 companies

This sample presents the CB Insights 8th Annual Top AI 100, a prestigious ranking of the 100 most promising private AI companies worldwide. The selection process, conducted by CB Insights experts, involved a meticulous analysis of comprehensive datasets, encompassing deal activity, industry partnerships, team expertise, investor credibility, and patent activity. In addition to data-driven insights, the evaluation included exclusive interviews with software buyers and an in-depth review of Analyst Briefings submitted directly by the startups. Notably, 68% of the selected companies are early-stage companies pioneering advancements in the AI field. This ranking serves as a valuable resource for identifying the future leaders of the AI industry and the innovative solutions they are developing.

Italian AI Ventures
111 companies

Ventures emerge using the country filter “Italy” within the primary sample.

European AI Startups*
1,722 companies

Startups were identified using this criteria:

- Active/Alive companies
- Headquarters in European countries
- Companies established from 2014 (max 10 years).
- Companies have received an investment from 01/01/2019 to 31/08/2024 (five years).
- The last investment round received was Convertible note; Angel; Seed; Serie A; were also included rounds related to Business Plan competition and Incubation/Acceleration.

The initial sample comprised 1,914 companies. After meticulous examination, 192 companies were excluded.

*We adopted a broad definition of startups, widely recognised in the USA and by CB Insights. This definition encompasses ventures characterised by innovation, scalability, and high growth potential, regardless of their year of establishment or other formal regulatory aspects. The focus is on ventures in a rapid growth and expansion phase. Therefore, the primary criterion for identification is the type of the latest funding round, specifically targeting only early-stage investments within the last five years.

Executive Summary

This document provides a summary of the Global AI Companies Overview, the first analytical block of the full report. This section examines leading AI companies worldwide, analysing investment trends across industries, identifying key market players, and assessing the role of major investors in shaping the global AI landscape.

The complete report includes additional sections on:

- The Top AI 100 in 2024 – Analysis of the most innovative and high-potential AI companies.
- Insights into Italian AI Ventures – Overview of key Italian AI startups, their investors, and regional distribution.
- European AI Startups – Examination of the European AI ecosystem, investment trends, and leading players.

For access to the full report, please contact:

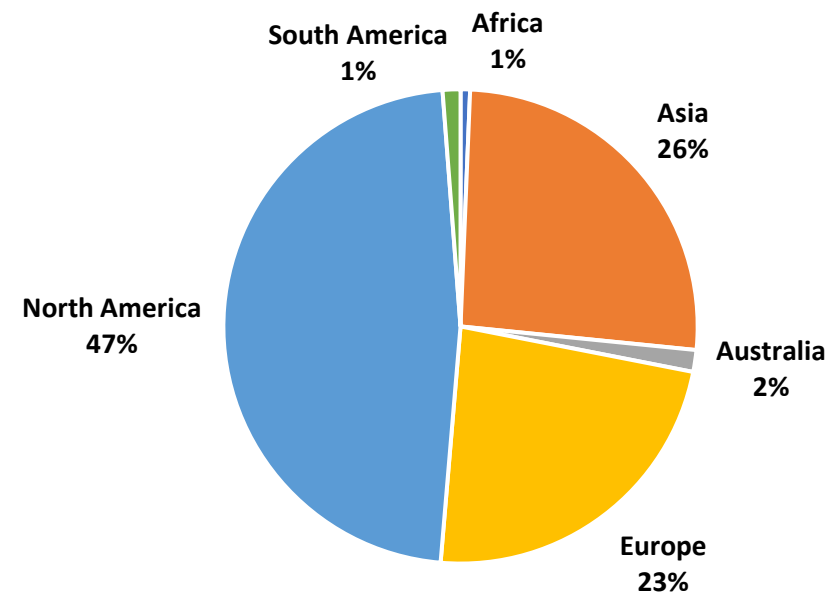
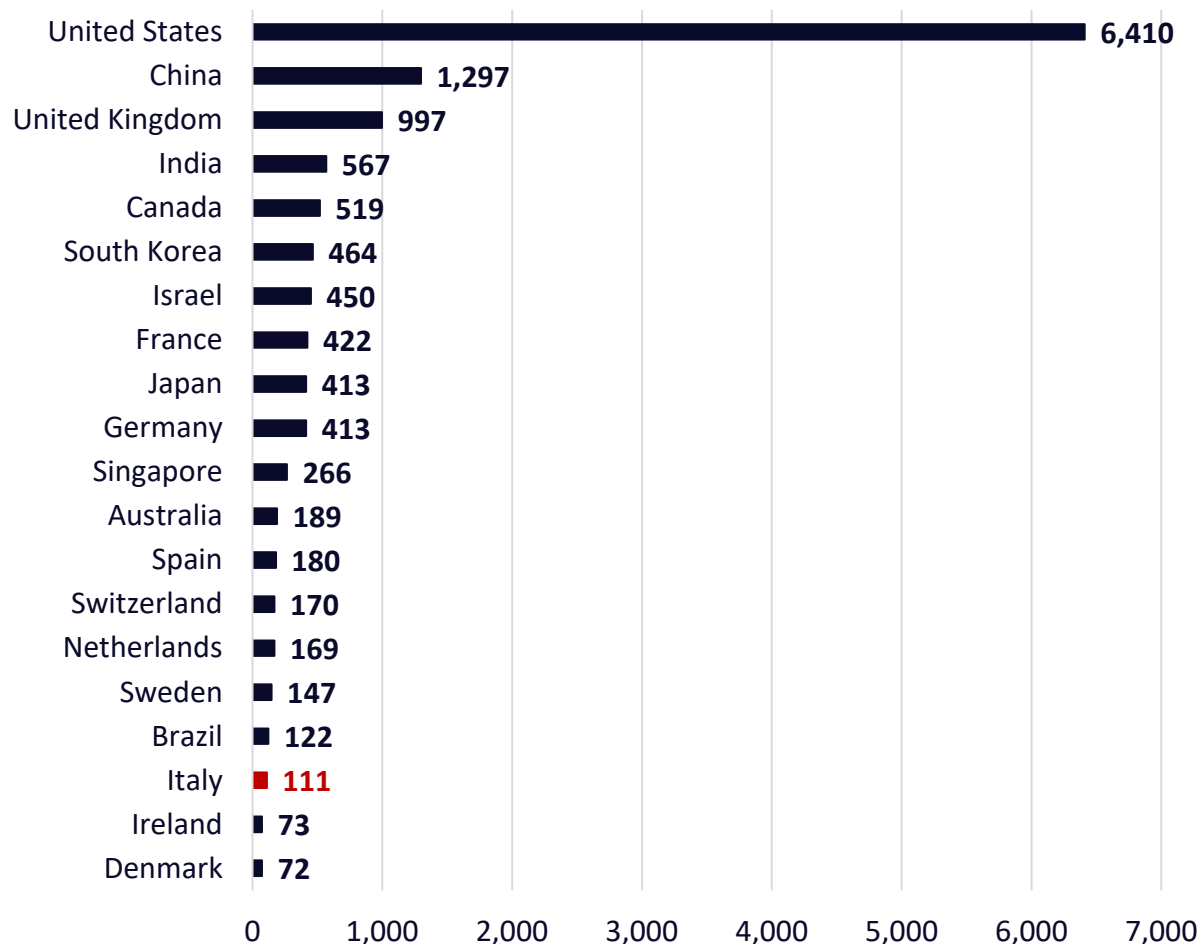
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Chronicles of AI Investments

| 1. Global AI Companies Overview

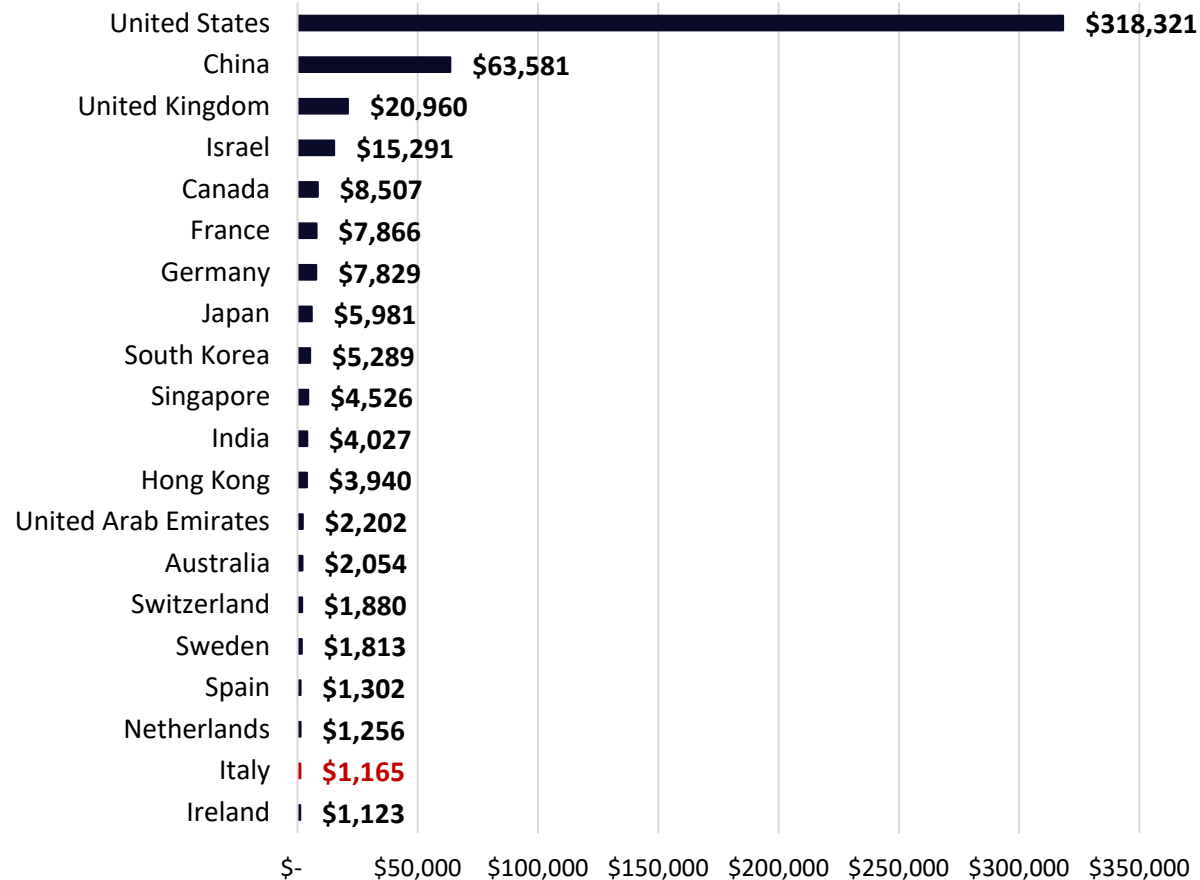
Geographical Distribution of Companies



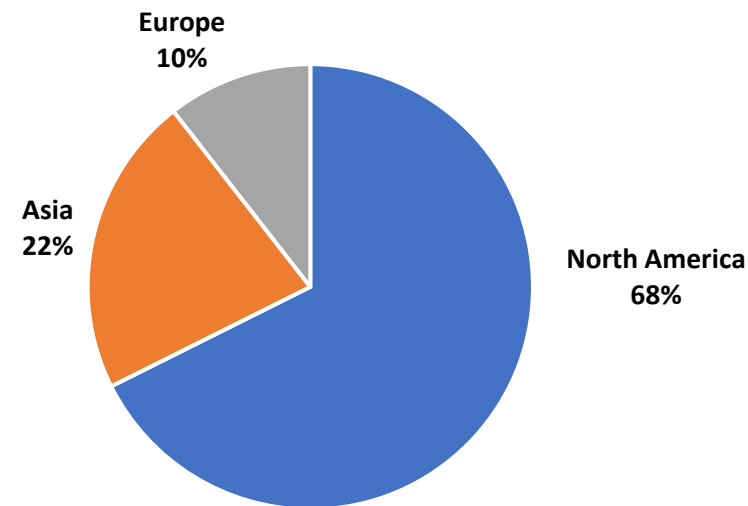
The total sample consists of **14,713 companies** located worldwide. Most of these companies are based in North America (47%), with 6,410 in the USA. China ranks second with 1,297 companies, followed by the UK, the leading European country, with 997 companies. The data reveals a significant disparity between North America, particularly the USA, and other continents and countries.

Italy occupies the **18th** position in this distribution, with 111 companies.

Global Funding Distribution



Data expressed in \$M

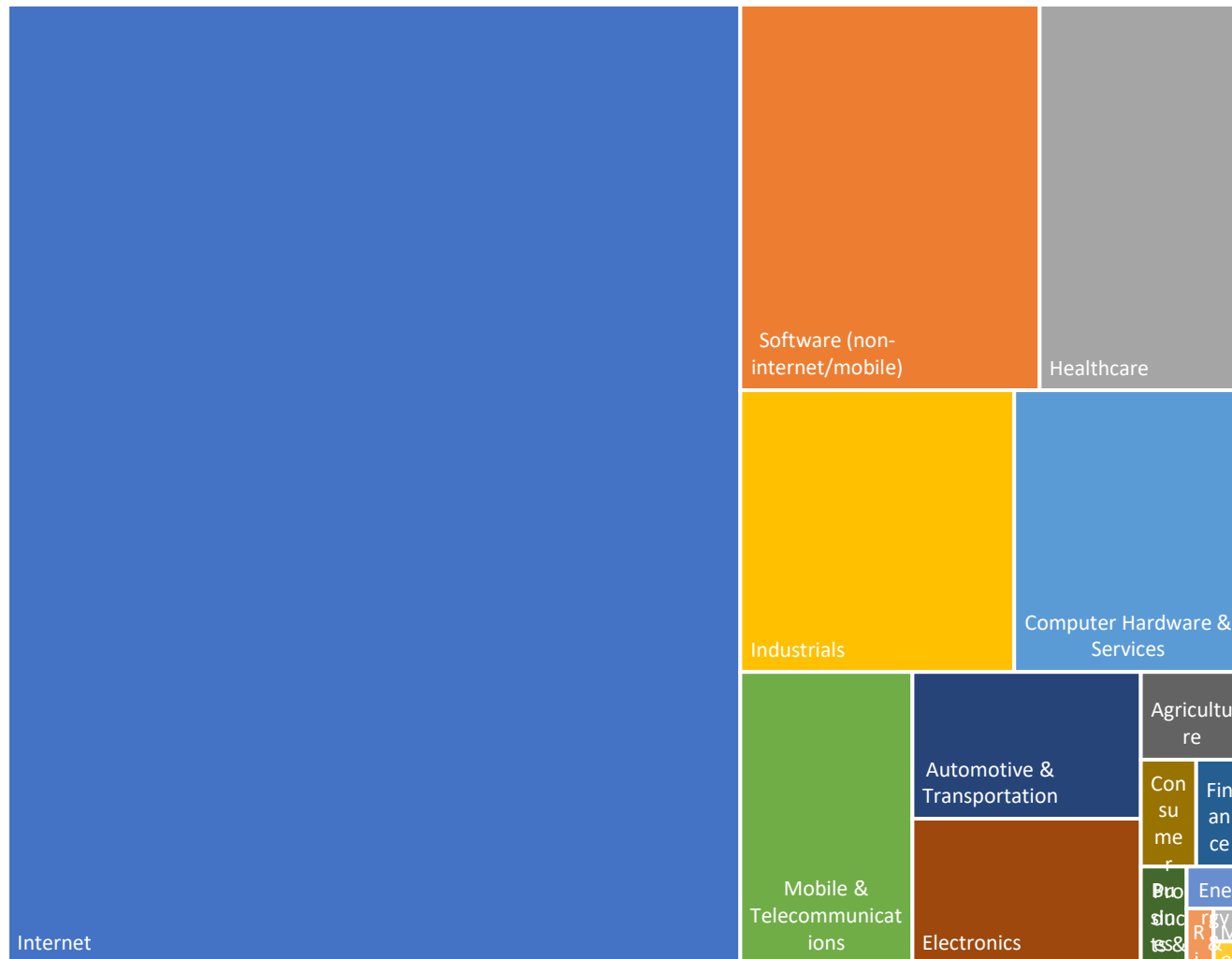


The total funding secured amounts to nearly **\$489 billion**. This figure includes all available funding rounds for each company from its inception. The data underscores the importance of AI technologies, given the substantial investment received by companies operating in this sector worldwide.

U.S. companies are the clear leaders, having secured more than **65% of the total investment** (\$318 billion). China ranks second, albeit significantly behind, with \$63 billion. The UK, the top European recipient, has attracted \$20 billion in funding. **Italian companies rank 19th**, with almost **\$1 billion** secured.

Funding is predominantly concentrated across three continents: North America, Asia, and Europe. Notably, **European companies** have **only** managed to secure **10%** of the total investment in this market.

Global Sector Funding

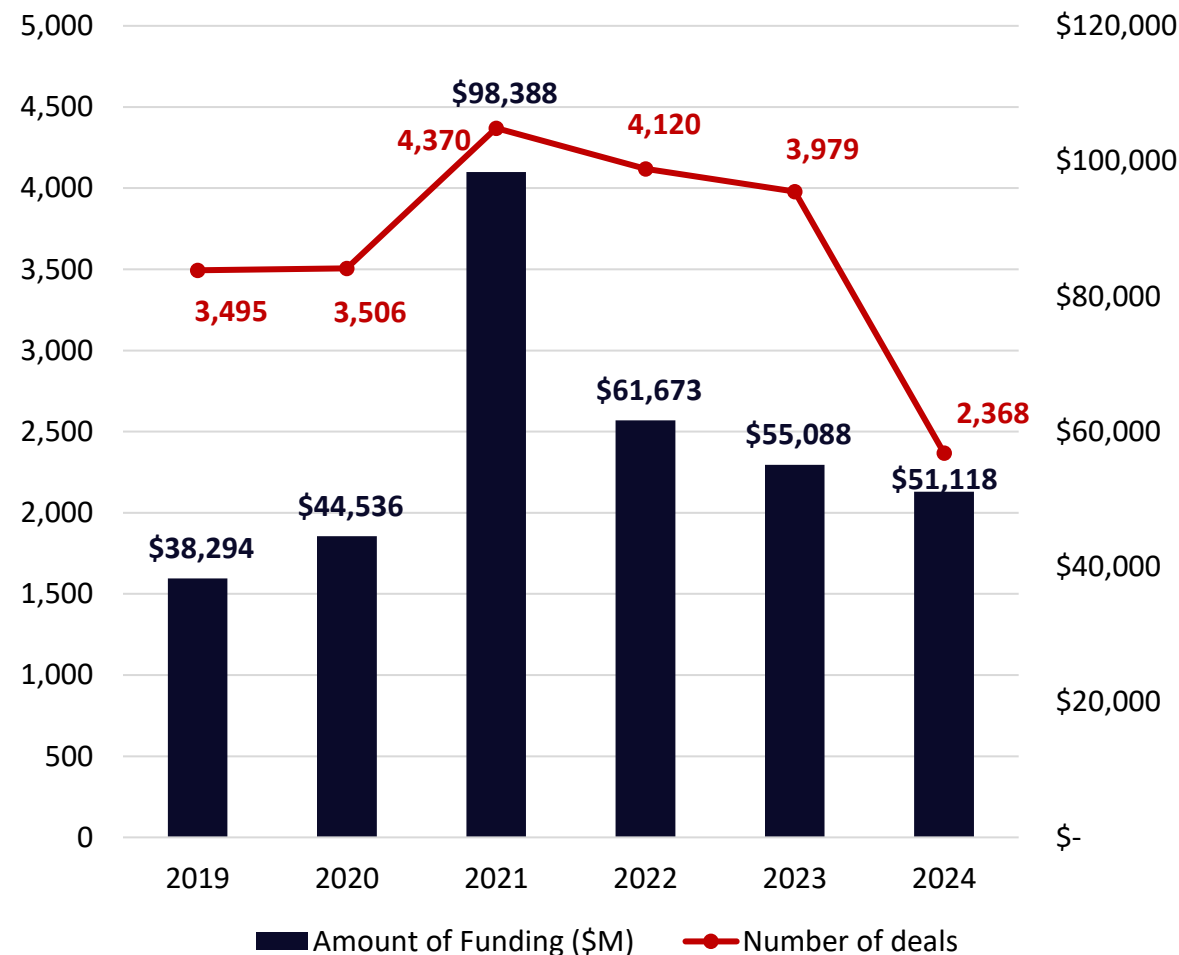


Sector	Total Funding (\$M)
Internet	\$ 289,432.65
Software (non-internet/mobile)	\$ 47,469.07
Healthcare	\$ 32,650.94
Industrials	\$ 31,727.16
Computer Hardware & Services	\$ 26,775.08
Mobile & Telecommunications	\$ 20,727.08
Automotive & Transportation	\$ 13,786.76
Electronics	\$ 13,754.97
Agriculture	\$ 3,773.14
Consumer Products & Services	\$ 2,435.96
Finance	\$ 2,166.28
Business Products & Services	\$ 1,858.25
Energy & Utilities	\$ 1,016.20
Risk & Security	\$ 629.64
Metals & Mining	\$ 429.64
Environmental Services & Equipment	\$ 182.75
Media (Traditional)	\$ 56.90
Leisure	\$ 46.94
Retail (non-internet/mobile)	\$ 13.61
Food & Beverages	\$ 13.02

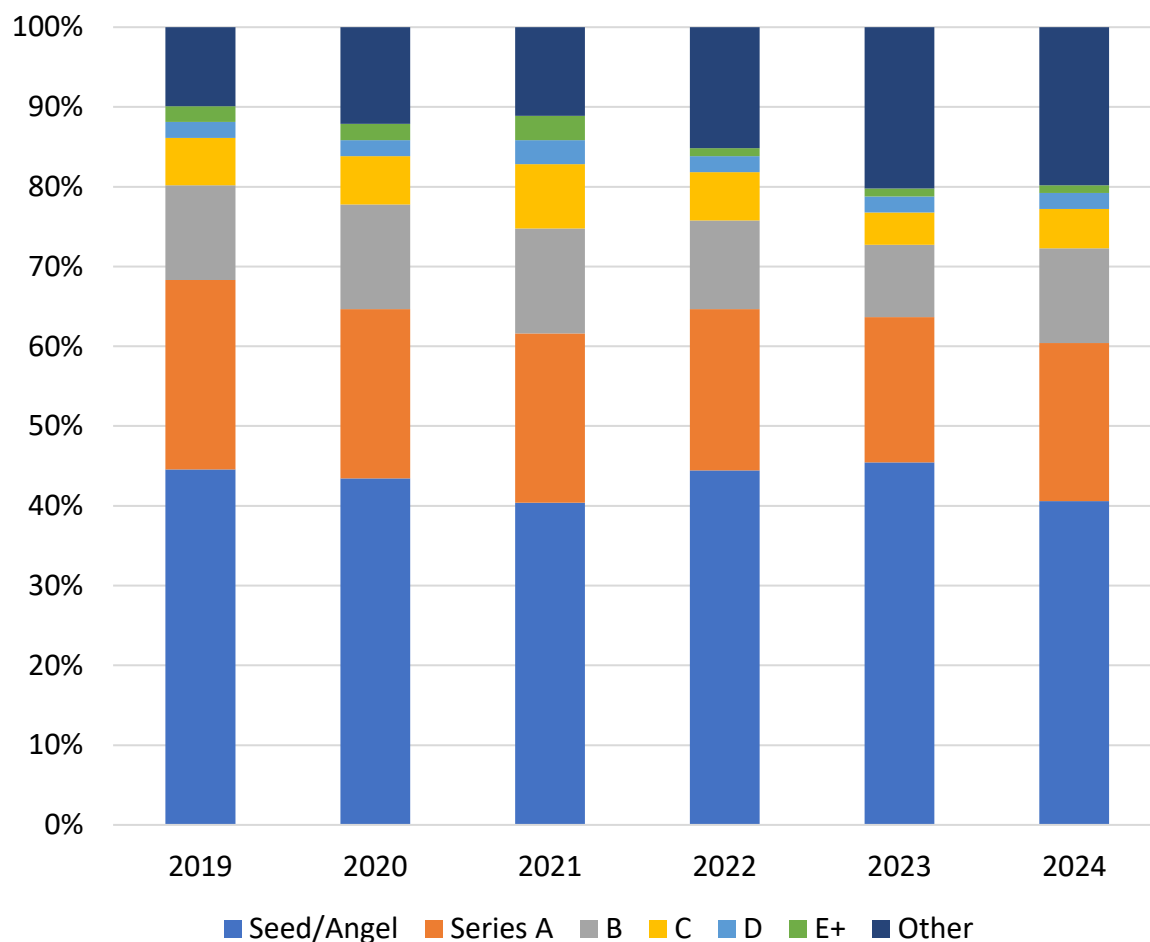
The Internet sector, mainly “**Internet Software & Services**”, emerged as the primary recipient of investment, attracting \$289 billion and leading in company count with 9,253 businesses. The software sector (excluding internet/mobile), represented by 1,738 companies, secured a substantial \$47 billion. Meanwhile, the healthcare sector, comprising 601 companies, attracted \$31 billion in funding.

Equity Funding Activity

- The data indicates a **steady deal increase** in total funding **from 2019 to 2021**. Notably, 2021 represented a peak with 4,370 deals and \$98,388 million in funding. This surge underscores substantial interest and investment in the AI sector.
- **After 2021**, both metrics have noticeably **declined**. In 2022 and 2023, the number of deals decreased to 4,120 and 3,979, respectively, while the total funding fell to \$61,673 million and \$55,088 million. This decline may reflect **shifting market dynamics** or increased selectivity among investors within the AI industry.
- The observed **fluctuations** in investment levels could be attributed to **various factors**, including global economic conditions, the COVID-19 pandemic and related issues, and the maturation of the AI sector, which led to more strategic investment practices.
- Data up to **September 2024** reveals a further **decline** in the **number of deals**, down to 2,368. Despite this decrease, the **total funding** for 2024 **stands at \$51,118 million**. This figure remains relatively high, suggesting that while fewer deals are being conducted, the **average size of investments might have increased, indicating a potential shift in investment strategy**. Given the current figures and assuming a continuation of the current investment trend through the remainder of the year, there is a potential for **2024's funding levels to surpass those of 2023**.

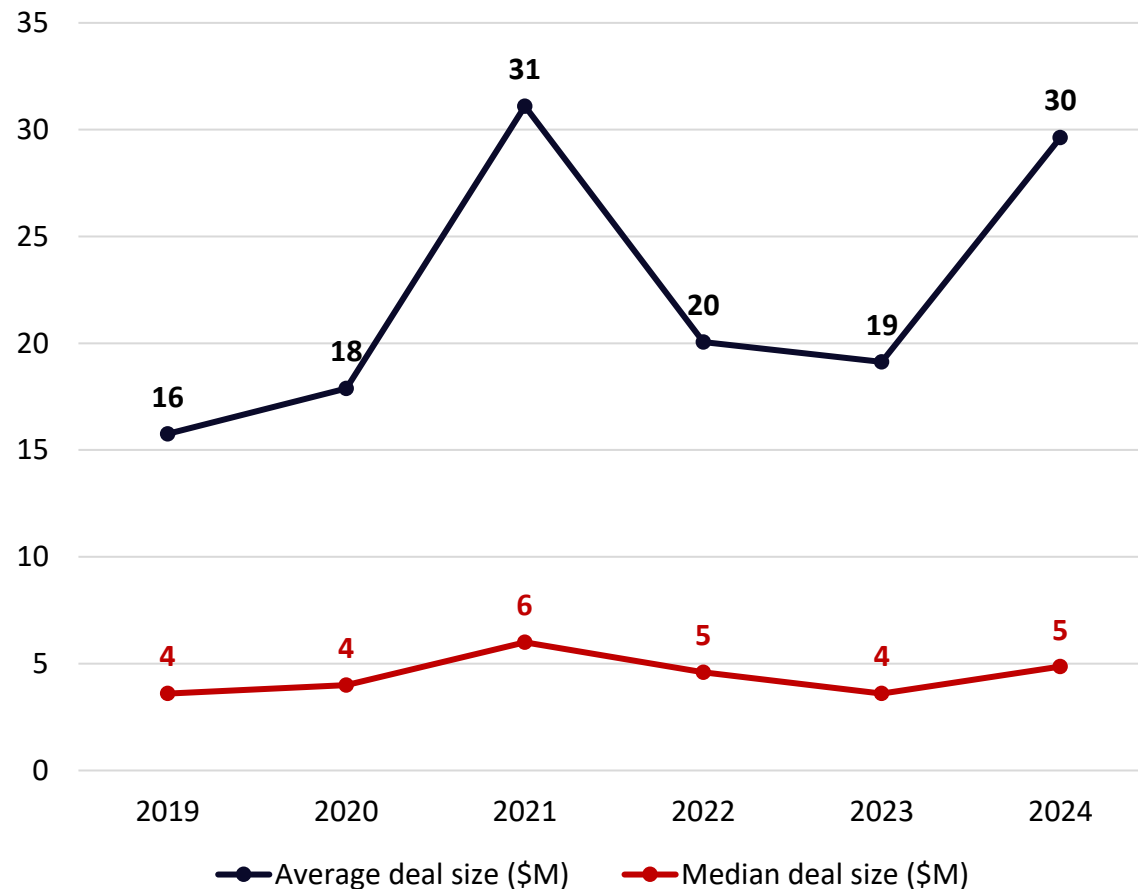


Deal Share by Stage



- **Seed and Angel investments** have consistently constituted the **most significant portion of funding**, ranging from 40% to 45%. This enduring prominence highlights the crucial role of early-stage support in nurturing new AI ventures and reflects ongoing strong investor interest in emerging technologies.
- **Series A** investments have **gradually decreased** from 24% in 2019 to 20% in 2024. This decline may indicate a shift in investor focus towards later stages of development or a strategic consolidation of resources on a select few high-potential startups.
- While **Series B** funding has remained **relatively stable**, with its proportion hovering around 12% throughout the period, the percentage of investments in **Series C and beyond** (including Series D and E+) has fluctuated. Series C investments have held steady, but Series D funding remains **comparatively low**.
- The **minimal share of Series E+** investments suggests that funding is predominantly concentrated in earlier stages, with fewer companies advancing to these more mature stages of financing.
- The **2024 data** showing a slight decrease in Seed/Angel investments suggests a shifting investment landscape. This trend may indicate that investors are exploring **alternative funding strategies** and possibly favouring **more mature or specialised projects**, as evidenced by the stable proportion of Series A investments.

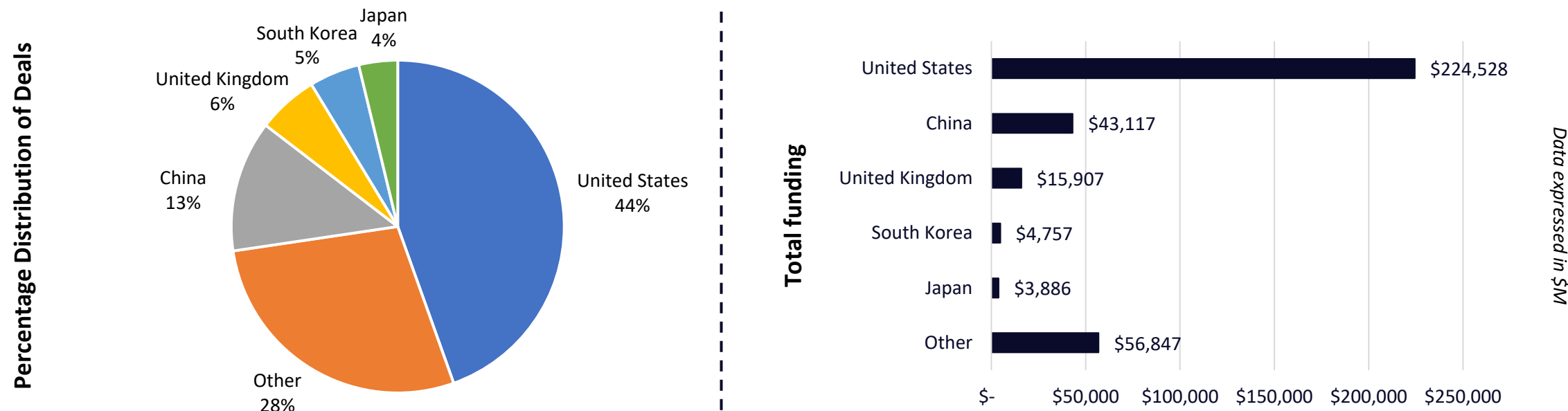
Deal Size



- The **average deal size** increased significantly from \$16 million in 2019 to \$31 million in 2021, primarily influenced by a few high-value investments. This sharp rise indicates a period of intensified investment activity and market enthusiasm. The subsequent decrease to \$19 million in 2023 suggests a period of market adjustment or reduced appetite for more significant deals. However, the rebound to \$30 million in 2024 may signal a resurgence in investor confidence and a renewed interest in substantial investments.
- The **median deal size** showed excellent stability, rising from \$4 million in 2019 to \$6 million in 2021 and then adjusting to \$5 million in 2022 and 2024. This relative consistency suggests that the typical deal size for most transactions remained steady, even as the average deal size fluctuated.
- **The recent rebound** in average deal sizes and stable median values indicates **renewed investor confidence and a strategic focus on larger investments**. This trend suggests that while the overall investment landscape may be consistent, there is an increased emphasis on significant deals. The stability of the median deal size amidst fluctuations in the average reflects a balanced investment environment, where core investment activities remain robust despite variations in deal sizes.
- These insights suggest a **market adapting to new opportunities** while **maintaining a steady base of investment** activity.

While both measures provide insights into deal sizes, the “average deal size” reflects the arithmetic mean of all deals, whereas the “median deal size” represents the middle value when deals are sorted by size. This gives a more accurate picture of a typical deal, as outliers do not skew it.

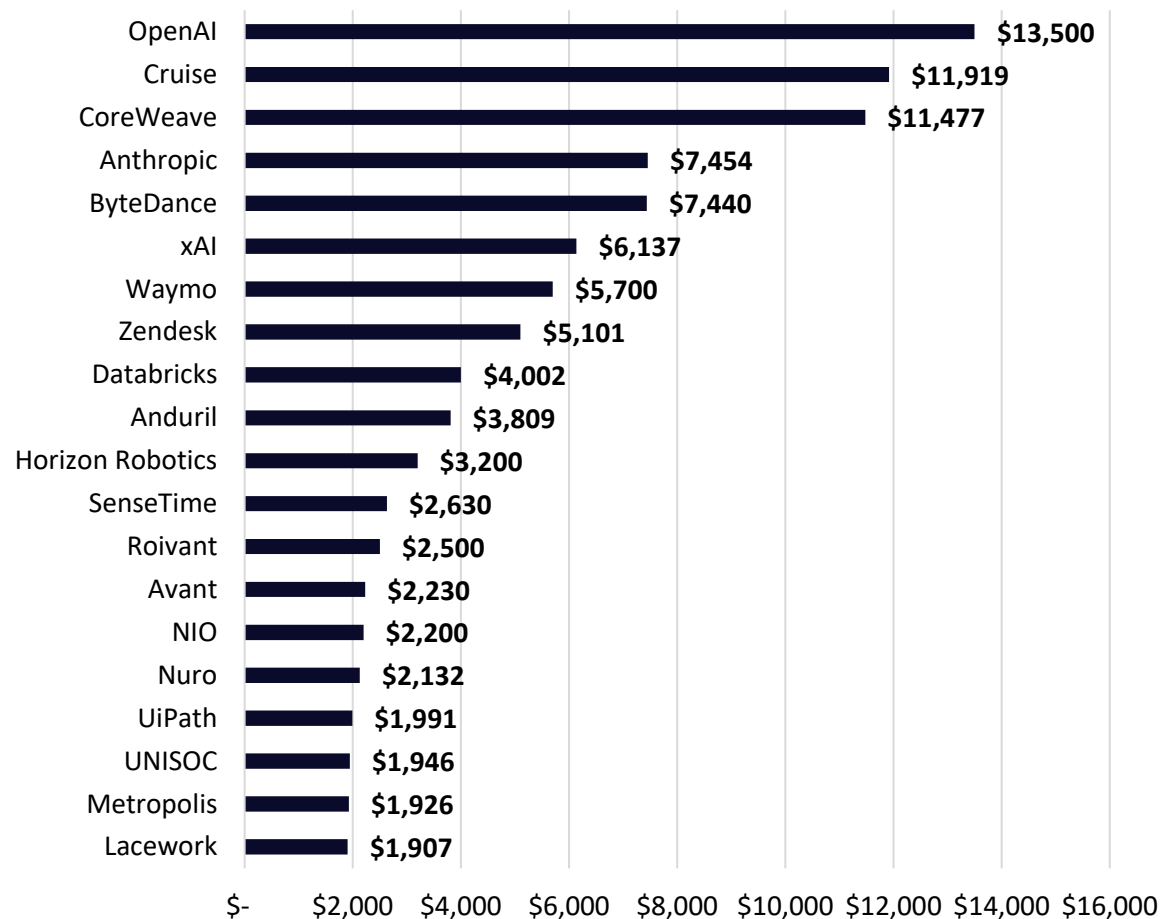
Deals by geography – last 5 years



Over the past five years (January 2019 – September 2024), AI companies have secured \$349 billion, accounting for 73% of the total funding in our sample. This underscores a particularly intense period of investment activity in recent years.

U.S. companies have been involved in the highest number of deals, with 9,721 transactions amounting to \$224 billion. Chinese companies have collected \$43 billion across 2,787 deals. The UK ranks third (1,287 deals and \$15 billion), reflecting the overall trends observed in the sample. South Korea and Japan highlight the growing investment in AI companies within Asia.

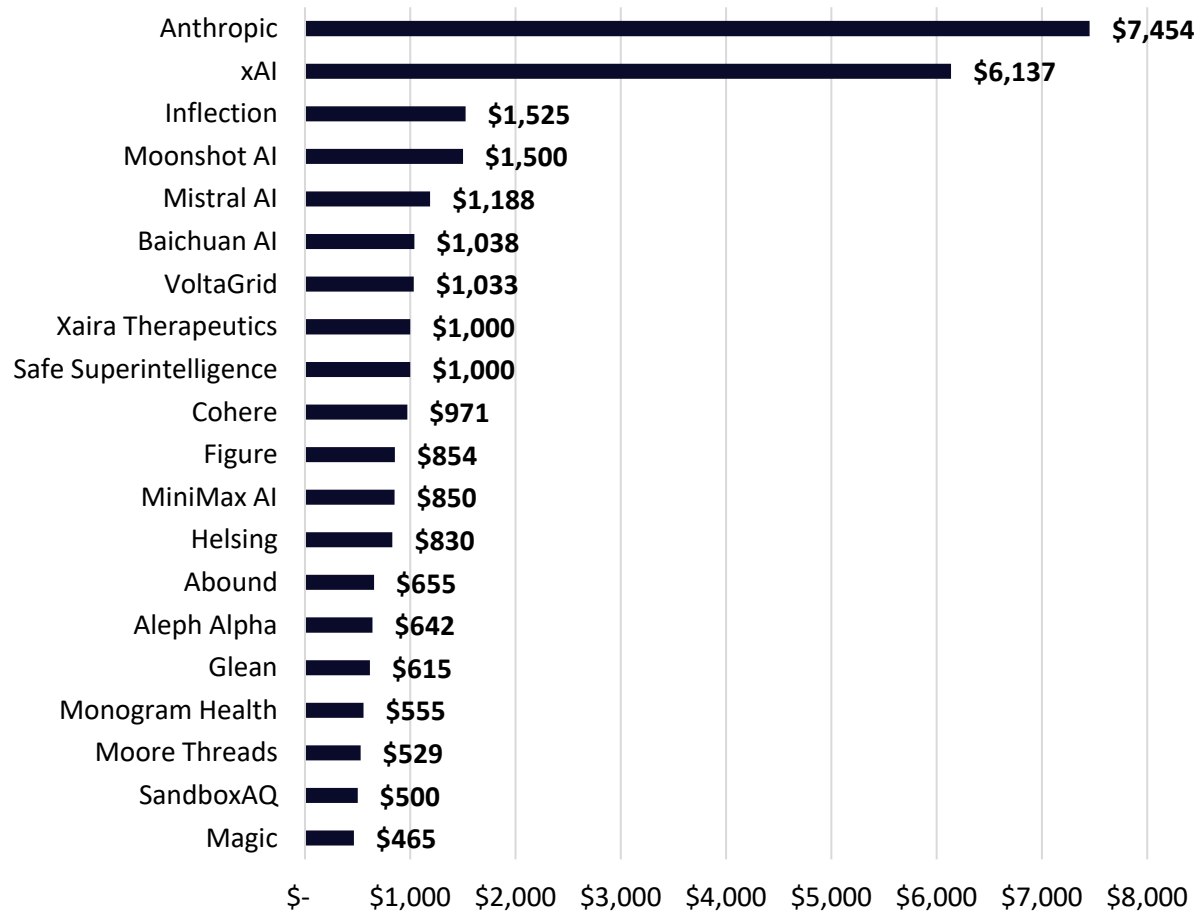
Top 20 funded companies



Data expressed in \$M

Companies	URL	Founded Year	Country
OpenAI	openai.com	2015	United States
Cruise	getcruise.com	2013	United States
CoreWeave	coreweave.com	2017	United States
Anthropic	anthropic.com	2021	United States
ByteDance	bytedance.com	2012	China
xAI	x.ai	2023	United States
Waymo	waymo.com	2009	United States
Zendesk	zendesk.com	2007	United States
Databricks	databricks.com	2013	United States
Anduril	anduril.com	2017	United States
Horizon Robotics	horizon.cc	2015	China
SenseTime	sensetime.com	2014	Hong Kong
Roivant	roivant.com	2014	United States
Avant	avant.com	2012	United States
NIO	nio.com	2014	China
Nuro	nuro.ai	2016	United States
UiPath	uipath.com	2005	United States
UNISOC	unisoc.com	2001	China
Metropolis	metropolis.io	2017	United States
Lacework	lacework.com	2015	United States

Top 20 funded companies – established in the last 5 years



Data expressed in \$M

Companies	URL	Founded Year	Country
Anthropic	anthropic.com	2021	United States
xAI	x.ai	2023	United States
Inflection	inflection.ai	2022	United States
Moonshot AI	moonshot.cn	2023	China
Mistral AI	mistral.ai	2023	France
Baichuan AI	baichuan-ai.com	2023	China
VoltaGrid	voltagrid.com	2020	United States
Safe Superintelligence	ssi.inc	2024	United States
Xaira Therapeutics	xaira.com	2023	United States
Cohere	cohere.com	2019	Canada
Figure	figure.ai	2022	United States
MiniMax AI	min1max.cn	2021	China
Helsing	helsing.ai	2021	Germany
Abound	getabound.com	2020	United Kingdom
Aleph Alpha	aleph-alpha.com	2019	Germany
Glean	glean.com	2019	United States
Monogram Health	monogramhealth.com	2019	United States
Moore Threads	mthreads.com	2020	China
SandboxAQ	sandboxaq.com	2022	United States
Magic	magic.dev	2022	Austria

Top investors worldwide

Name	Type	Country	Last 3 Months	Last Year	Last 2 Years	All Time
Y Combinator	Incubator/Accelerator	United States	12	169	364	931
Plug and Play	Incubator/Accelerator	United States	0	0	24	550
Plug and Play Ventures	Venture Capital	United States	3	23	53	344
Andreessen Horowitz	Venture Capital	United States	12	46	79	291
Khosla Ventures	Venture Capital	United States	6	40	64	278
TIPS Program	Incubator/Accelerator	South Korea	8	28	46	263
Accel	Venture Capital	United States	6	26	34	249
New Enterprise Associates	Venture Capital	United States	5	18	32	238
Google Ventures	Corporate Venture	United States	5	16	35	234
Intel Capital	Corporate Venture	United States	3	12	23	221

This dynamic investment landscape illustrates the **distinct roles played by various investor types**, each contributing uniquely to the development of the AI sector. Notably, nearly **all primary investors** are based in the **USA**, which supports the predominance of US-based AI companies.

Incubators and accelerators, such as Y Combinator and Plug and Play, are leading the early-stage AI revolution. **Y Combinator** stands out with an impressive **931 investments**, highlighting its crucial role in advancing nascent AI companies. Its recent surge in activity—12 investments in the past three months and 169 over the past year—demonstrates its continued influence in scaling new ventures. Plug and Play, with 550 investments, also plays a significant role; however, its recent decrease in activity may suggest a strategic shift or a temporary pause that warrants further examination.

Venture capital firms, including Andreessen Horowitz, Khosla Ventures, and Accel, are vital in driving the growth of AI companies. Andreessen Horowitz leads with 291 investments, maintaining a strong presence and consistent funding. Khosla Ventures and Accel follow closely with 278 and 249 investments, respectively. Their sustained investment activity underscores their crucial role in scaling AI startups and fostering innovation.

Corporate venture arms, such as Google Ventures and Intel Capital, take a more strategic approach by aligning their AI investments with broader business goals. Google Ventures, with 234 investments, and Intel Capital, with 221, focus on integrating cutting-edge AI solutions with their corporate strategies. Although their investment frequency is lower, their targeted approach reflects a carefully curated strategy aligned with their long-term objectives.

Top acquirers worldwide

Name	Type	Country	Last 3 Months	Last Year	Last 2 Years	All Time
Apple	Corporation	United States	0	2	3	35
Google	Corporation	United States	0	0	4	21
Meta	Corporation	United States	0	0	1	18
Microsoft	Corporation	United States	0	0	0	17
Intel	Corporation	United States	0	0	0	13
Amazon	Corporation	United States	1	1	3	11
Salesforce	Corporation	United States	1	2	2	11
Accenture	Corporation	Ireland	0	2	4	10
Thoma Bravo	Private Equity	United States	0	1	3	9
X	Corporation	United States	0	0	0	8

The **diverse range of acquirers**, spanning **tech giants**, private equity firms, and consulting companies, highlights the widespread interest in AI technologies. Major technology corporations **based in the USA**—such as Apple, Google, Meta, Microsoft, Intel, Amazon, and Salesforce—have been pivotal in acquiring AI companies. **Apple leads** with 35 acquisitions, reflecting its strategic aim to expand its AI capabilities. Google and Meta follow with 21 and 18 acquisitions, respectively, demonstrating their focus on enhancing their AI and technology portfolios. Microsoft and Intel, although less active in recent years, have made significant historical acquisitions (17 and 13, respectively), underscoring their long-term commitment to AI integration.

Accenture, the **only non-U.S. company** from Ireland, has been active with 10 acquisitions, indicating its strategic interest in integrating AI to complement its consulting services. Thoma Bravo, a private equity firm, has made 9 acquisitions, reflecting its role in investing in and scaling AI companies. Finally, X (formerly known as Twitter) has made 8 acquisitions, showcasing its selective approach to integrating AI technologies.

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