Q2 2024

SPACE IQ

Space Investment Quarterly

Private market equity investment activity and startup trends in the space economy – from the investors at the forefront

$291.3B

Cumulative Private Market Equity Investment since 2015

1,830

Unique Companies

$4.0B

Q2 Investment

123

Q2 Number of Companies Receiving Investment

Front cover image: An image taken by Russian cosmonaut Sergey Korsakov from OFT-2 shows the Boeing Starliner spacecraft approaching the International Space Station, June 7, 2024.

Photo credit: Sergey Korsakov / Roscosmos

Q2 2024

Space IQ | Space Investment Quarterly

Venture capital continues to be the leading source of funding for space companies and at the core of the slowdown is a lack of liquidity-producing exits. With strong macroeconomic indicators at the start of 2024, we expected several rate cuts this year to spur a turnaround, which have yet to materialize. In fact, the Fed now expects to cut interest rates just once in 2024 amid stubborn inflation. This, combined with election uncertainty, is resulting in a prolonged market correction, a difficult fundraising environment, and a tepid exit environment.

However, there are signs that investment in the space economy is improving. Following last year's decade-low in investment activity (as investors shied away from revenue-starved LBS), the situation in 2024 is markedly different. There were more deals done in Q2 than in the past nine quarters. And halfway through 2024, investment in space Applications has already surpassed the full year total for 2023, indicating that we may be through the trough. Additionally, following last year's record-high growth-stage investments in Infrastructure, this quarter was the fourth-highest. In contrast to the broader venture market, this year is on track to log the highest acquisition activity of the past decade, with 38 deals YTD. However, this consolidation is generally the result of hard times and the value of these acquisitions remains subdued. Although the IPO market has yet to open, we are seeing signs of life with strong initial demand for Astroscale's (TYO:186A) listing and the expected Sierra Space IPO. With stock markets climbing higher and improvements in private market valuations, we may still see the exit environment improve by year-end.

At our recent **Space Capital Summit** we revisited our predictions for 2024 and how they've remained on target, despite macro market headwinds. These catalysts are key to understanding the continued growth of the space economy and below is a summary of how these predictions are playing out:

Prediction: AI will accelerate innovation in the space economy and enable companies to unlock the value of geospatial data.

After 12 years of investing in the space economy, it's surreal to see so many VC firms featuring Space + AI at their annual meetings this year. At our Summit, we hosted a conversation on **Big (Geospatial) Data & AI**, which explored how the Pentagon is making use of AI with spy satellite data. Meanwhile, Planet (NYSE:PL) is leveraging **synthetic data** to simulate satellite imagery and enable customer conversations before a satellite is even launched. The company will be among the first to space-qualify and fly an **NVIDIA Jetson GPU** on a satellite to enable intelligent imaging and faster insights for customers.

Prediction: Government funding will continue to be a key driver of growth.

In the quest for revenue, more companies are chasing government dollars — and more investors are willing to fund them. For further reading, we've just **published research** on the inextricable link between defense spending and commercial space in the United States. At our Summit, we also explored the shifting global power dynamics and the **growth of the Chinese space economy**. China has led YTD space Infrastructure investment, accounting for 37% of growth-stage and 63% of early-stage funding, both surpassing the U.S. Rising geopolitical tensions, particularly with China, continue to drive increases in U.S. government funding.

Prediction: After record launch activity in 2023, expect continued growth in 2024 driven by SpaceX.

In the first half of 2024, SpaceX has continued to push the boundaries of what is possible with 67 launches, reflying a booster for a record 20th time, and completing the first ever controlled soft landings of Starship and Super Heavy. With the rapid advancement of the Starship test program, the space economy is on the verge of a major new phase of development, yet many are unprepared for the coming change. At our Summit, we imagined **new market opportunities in a Starship world**. At the same time, SpaceX's dominance will be challenged by nearly a dozen new vehicles that are expected to come online this year.

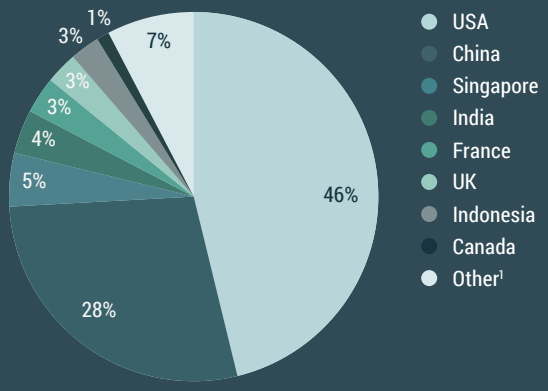
Prediction: Space Traffic Management will continue to be a key focus area in the year ahead.

Nearly 9,000 satellites are already in orbit, and by 2030 this number will increase by a factor of 11x. The rapid growth of international space infrastructure is significantly increasing the risk of conjunctions (potential collisions) and driving stronger demand for space situational awareness (SSA) data and space traffic management (STM) solutions. With space assets now growing at a rate faster than Moore's Law, STM will undoubtedly continue to be a key focus area. In another Summit conversation, we discussed **what is being done to protect this critical orbital infrastructure**.

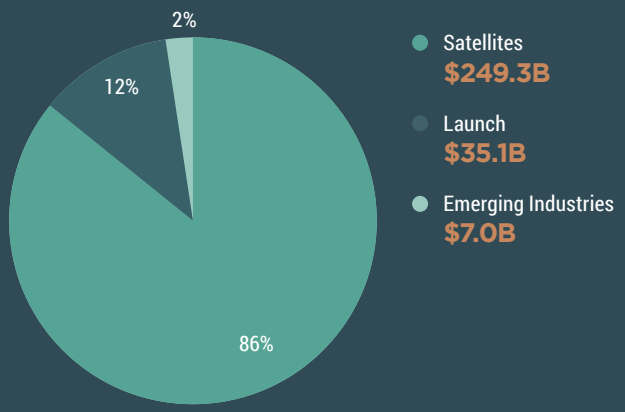
Investment in the Space Economy

CUMULATIVE PRIVATE MARKET EQUITY INVESTMENT FROM 2015 TO PRESENT

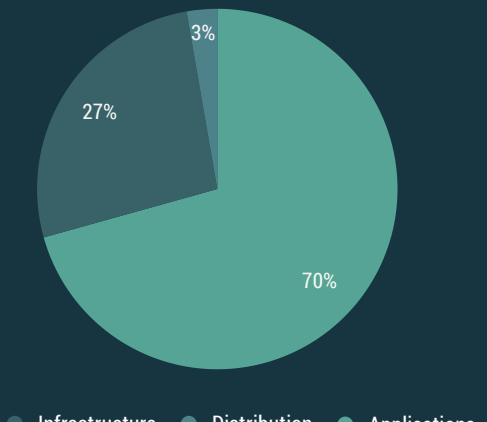
TOTAL INVESTMENT BY GEOGRAPHY



TOTAL INVESTMENT BY INDUSTRY



TOTAL INVESTMENT BY LAYER



ANNUAL INVESTMENT BY LAYER

1. "Other" consists of countries each representing less than 1% of funding.

Year to Date

PRIVATE MARKET EQUITY INVESTMENT

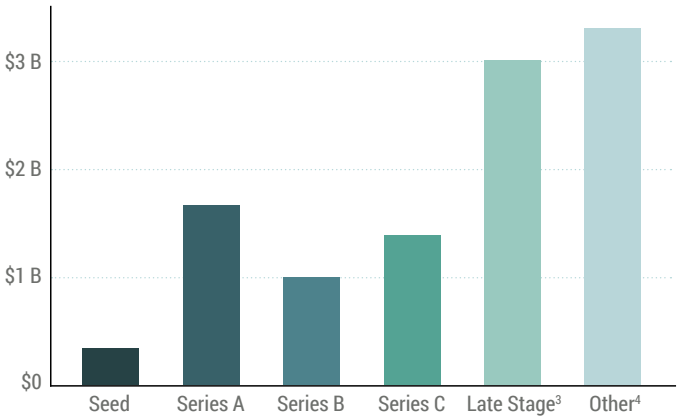
$10.7B

NUMBER OF ROUNDS
235

EARLY-STAGE INVESTMENT[2]
$2.0B

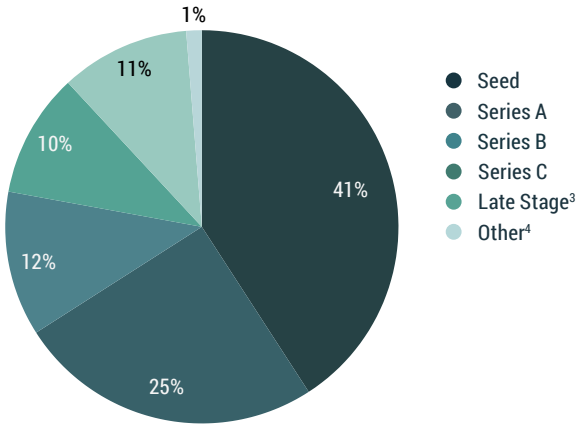
EARLY-STAGE ROUNDS
155

BY STAGE • INVESTMENT AMOUNT



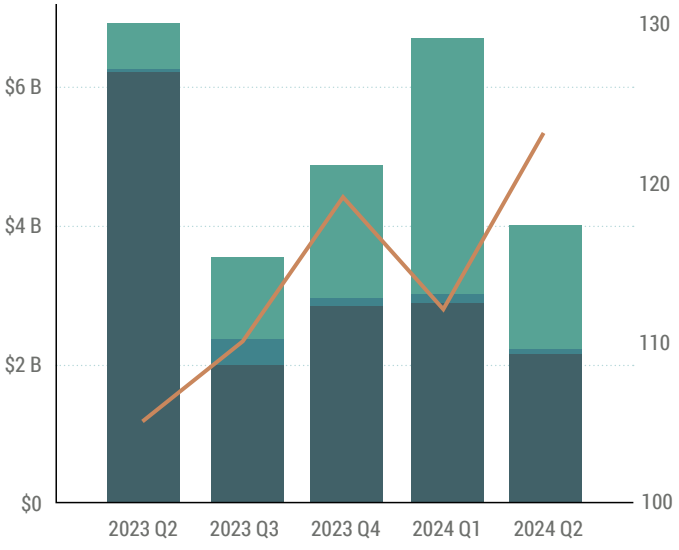
In Q2, investment in the space economy maintained its strong momentum, totaling $4.0B across 123 companies. Late-stage and other companies are the primary driver with $1.8B, accounting for 46% of the total. Growth-stage investments followed closely with $1.7B, marking it the second-highest quarter since Q2'21.

BY STAGE • ROUND SHARE



The total number of rounds continued to rebound, reaching 123, the highest since Q1'22. This is driven by a surge of growth-stage rounds with a 70+% increase in both QoQ and YoY. Early-stage deal activity remained strong, making up 66% of the total round share, slightly below its ten-year average of 69%. Late-stage and other rounds also remained elevated, suggesting a growing investor confidence across all stages.

BY LAYER • INVESTMENT AMOUNT AND DEALS BY QUARTER



NUMBER OF ROUNDS IN Q2

123

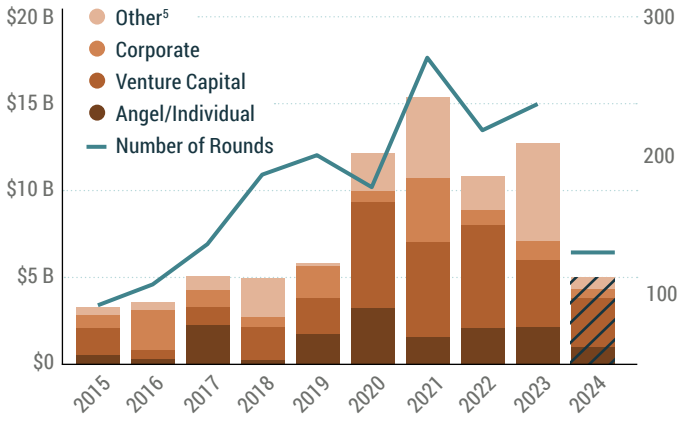
Infrastructure companies led in Q2 with $2.1B in investments, maintaining their dominance in four of the past five quarters. Since 2020, annual Infrastructure investments have consistently exceeded $10B, and 2024 is on pace to continue that trend. $1.8B Applications investments in Q2 has helped the layer surpass its 2023 total. Despite this uptick and improving market conditions, Applications companies continue to face financial challenges necessary for exits.

2. Early-stage consists of Pre-Seed, Seed, and Series A rounds.
3. Late-stage consists of Series D+ and Liquidity Rounds.
4. Others include non-traditional investments like take-private transactions and self-capitalization from Jeff Bezos, Elon Musk, Richard Branson, and Robert Bigelow who are classified as Individual investors providing large investments (hundreds of millions) in their own companies through unclassified rounds.

Infrastructure

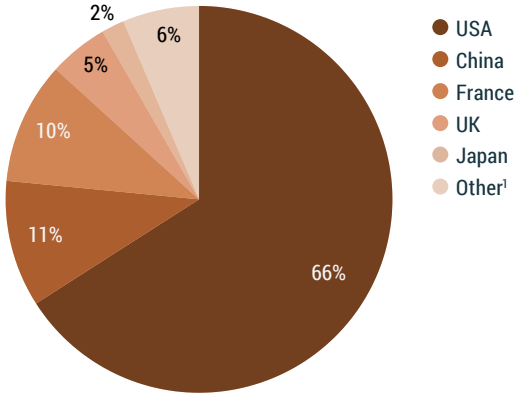
Hardware and software to build, launch, and operate space-based assets

ANNUAL INVESTMENT SOURCE



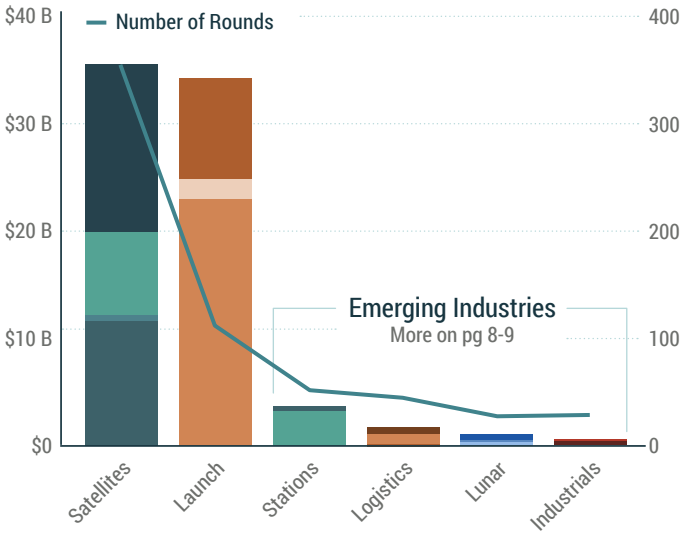
Infrastructure investment led during the quarter with $2.1B raised. VC investors accounted for 51% of capital deployed exceeding the 40% average contribution over the past decade. Angel/Individual investors continue to play an outsized role accounting for 26% of Q2 funding and 21% since 2015, driven by Jeff Bezos' financing of Blue Origin.

CUMULATIVE INVESTMENT GEOGRAPHY



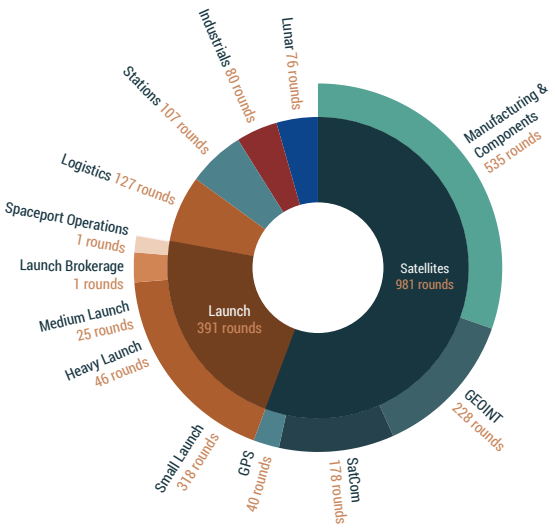
The U.S. has dominated global Infrastructure investment over the past decade, securing 66% of total capital, with SpaceX and Blue Origin accounting for 30% of the U.S. total. China is in second place and poised to expand its share with accelerating investments and progress in Small Launch, SatCom, and Advanced Manufacturing sectors. France trailed at third after overtaking the UK with the successful merger of OneWeb and Eutelsat. Countries in Asia, notably India, Japan, and South Korea, have all experienced an increase in early-stage activity.

BY SECTOR6 • CUMULATIVE INVESTMENT AMOUNT



Satellite industry investments totalled $36.4B over the past decade and have outpaced Launch for the first time. Launch received $34.7B over the same period, with Heavy Launch accounting for 67% of this total. Since 2015, three times more Satellites companies have received investments than Launch, demonstrating a shift in founders building spacecraft and talent moving towards advanced sensing and connectivity.

BY SECTOR • CUMULATIVE ROUND SHARE



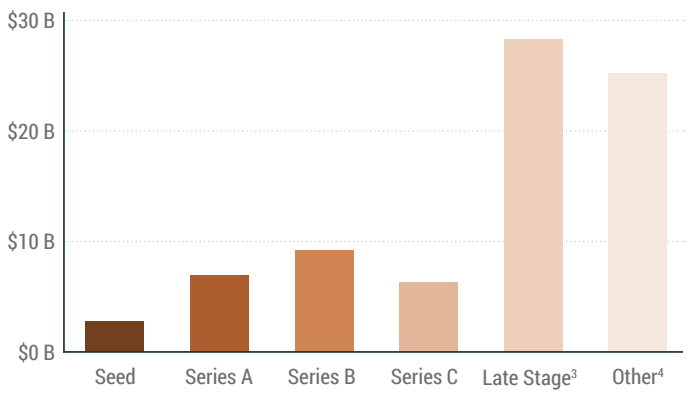
Since 2015, the Satellites industry has seen the largest amount of deal activity representing 56% of the Infrastructure round share. Zooming in, the most active sectors have been Satellite Manufacturing, Small Launch, and GEOINT, generating 61% of deals in the last decade. In Q2, this trend continued with the aforementioned sectors contributing to 67% of the total rounds.

5. "Other" includes Foundations, Private Equity, Sovereign Wealth Funds, Mutual Funds, Crowd Platforms.
6. See Unpacking the Emerging Industries blog post

TOTAL EQUITY INVESTMENT SINCE 2015

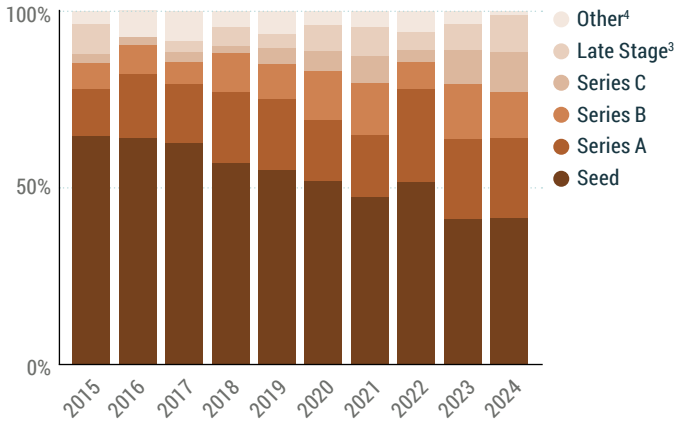
$78.5B

BY STAGE • CUMULATIVE INVESTMENT AMOUNT



Following 2023's record year for growth-stage Infrastructure investments, Q2 saw continued momentum with $1.1B, marking the fourth-highest quarterly investment in 10 years. China has led YTD investment with companies raising across SatCom, Launch, and Satellite Manufacturing companies. Chinese companies accounted for 37% of the growth-stage funding and 63% of the early-stage funding, both surpassing the U.S.

BY STAGE • ANNUAL ROUND SHARE



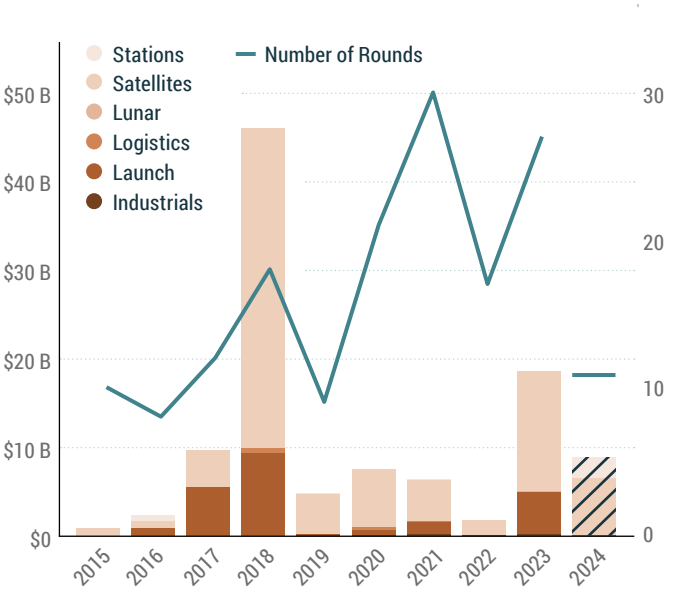
While early-stage investments represented 72% of all rounds in the past decade, their share decreased to 61% of Q2 rounds and 65% of all 2024. This may indicate a rebound in the investment landscape and as growth and late-stage deals become more frequent. This shift may also be attributed to investors focusing on existing portfolio companies rather than adding new investments, which decreases the number of early-stage rounds.

TOP DEALS IN THE QUARTER

COMPANY	ROUND	AMOUNT
Blue Origin	Self Capitalization	$500 M
Space Pioneer	Series C	$210 M
MinoSpace	Series C	$140 M
ICEYE	Series E	$93 M
PLD Space	Series C	$84 M
Apex	Series B	$75 M
Isar Aerospace	Series C	$70 M
CesiumAstro	Series B	$65 M
X-BOW	Series B	$60 M
Privateer Space	Series A	$57 M

The top 10 deals in Q2 amounted to $1.4B, with the Launch industry receiving 68% of the total and Satellites 28%. The Small Launch sector was the most active, featuring one company each from the U.S., China, Spain, and Germany. Satellite Manufacturing followed as the U.S. and China seek to accelerate mass production capabilities. The list also featured seven growth-stage deals, demonstrating sustained follow-on capital availability. Space Capital portfolio company ICEYE raised $93M to launch up to 15 satellites in 2024.

EXITS BY INDUSTRY

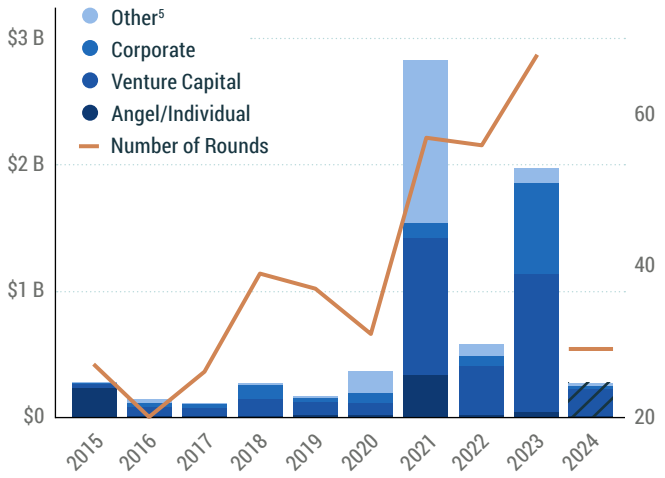


Q2 saw $3.2B realized through seven Infrastructure exits. This was driven by two Emerging Industries companies that made up 77% of the total, while five satellite companies accounted for the remainder. Cadence Design Systems has acquired BETA CADE Systems, a provider of multi-domain, multi-physics simulation solutions. Another high-profile deal is Synopsys' pending $35B acquisition of Ansys, the leader in engineering simulation. Over the past decade, acquisitions have constituted 87% of infrastructure exit value and 67% of the rounds.

Emerging Industries

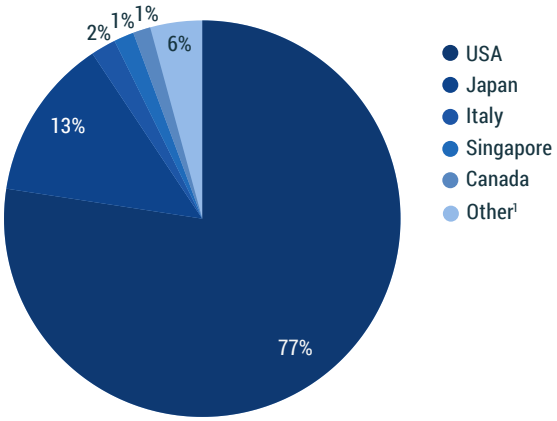
Subset of Infrastructure excluding Launch and Satellites industries

ANNUAL INVESTMENT SOURCE



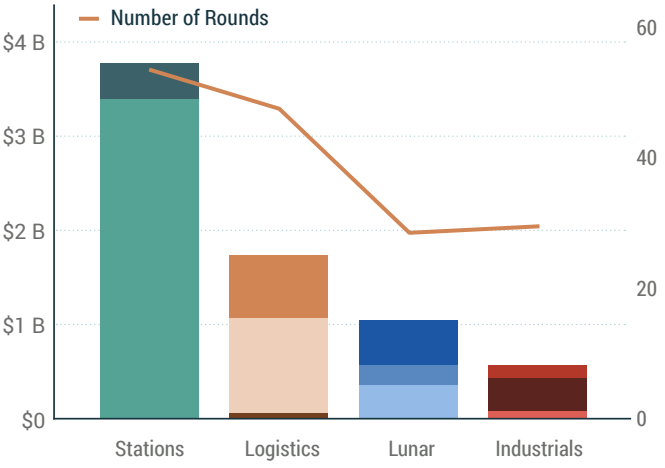
18 companies across the Emerging Industries raised a total $0.1B in Q2. VC has accounted for 80% of investments YTD. Since 2015, $7.0B has been invested in this category across 153 unique companies. VC Investors accounted for 47% of capital deployed, followed by Private Equity at 26%, and Corporate at 17%. Notably, Angel investors also contributed a significant share with 10%.

CUMULATIVE INVESTMENT GEOGRAPHY



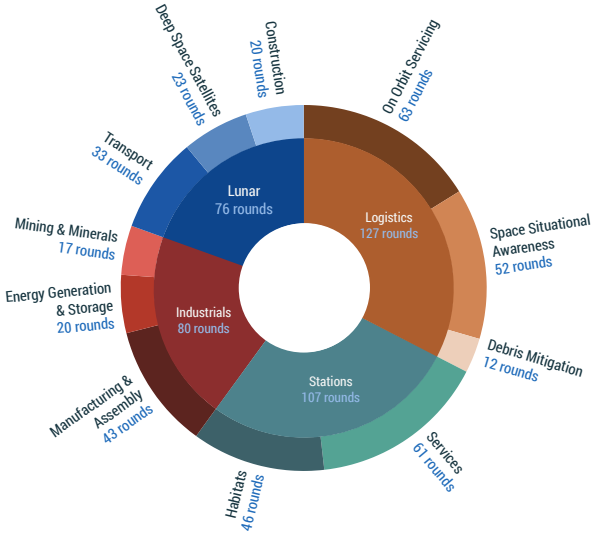
U.S. companies raised the majority of capital at 77% over the past decade. This is driven by Sierra Nevada's spin-off, Sierra Space, venture investments in Axiom Space, ICON, Varda, True Anomaly, LeoLabs and self-capitalization of Vast. Japan accounts for 13% with investments in Astroscale, iSpace, and GITAI. Italy, Singapore, Canada, Germany followed with notable investments including D-Orbit, Qosmosys, NorthStar Earth and Space, and The Exploration Company.

BY SECTOR[6] • CUMULATIVE INVESTMENT AMOUNT



Over the past decade, Stations secured the most funding at $3.7B, followed by Logistics at $1.7B, Lunar at $1.0B, and Industrials at $0.6B. Zooming in, the leading sectors include Habitats ($3.3B), On-Orbit Servicing ($1.0B), Transport ($0.5B), and Manufacturing and Assembly ($0.3B), respectively. The companies with the largest total investments include Axiom Space and Sierra Space in Stations, Astroscale and D-Orbit in Logistics, ICON and iSpace in Lunar, Varda Space and Redwire (NYS: RDW) in Industrials.

BY SECTOR • CUMULATIVE ROUND SHARE

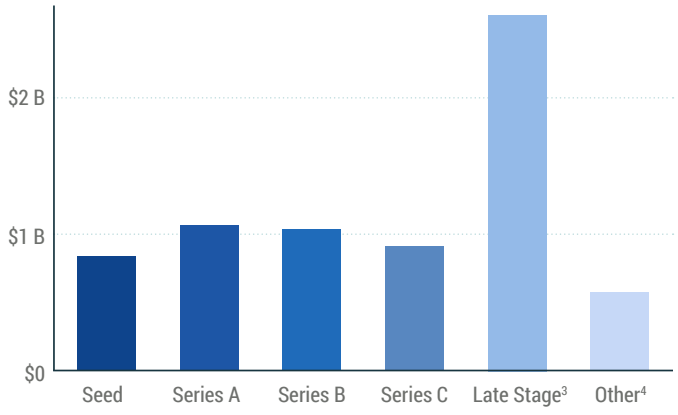


Logistics has led round activity since 2019. This trend continued in Q2, closing 10 out of 18 rounds with a near equal split of On Orbit Servicing and SSA companies. The sector also accounted for 52% of the YTD funding. Furthermore, Logistics makes up 33% of the total round share over the past decade, surpassing Stations at 27%. This emphasizes the increasingly critical role the Logistics industry plays in cultivating a sustainable and vibrant space economy.

TOTAL EQUITY INVESTMENT SINCE 2015

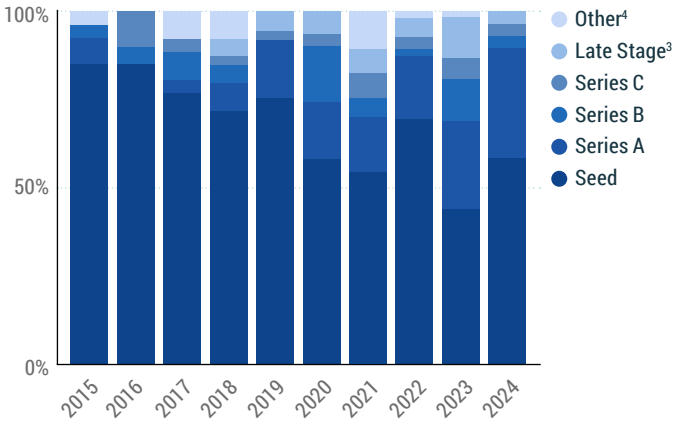
$7.0B of $78.5B

BY STAGE • CUMULATIVE INVESTMENT AMOUNT



Since 2015, growth-stage funding has outpaced early-stage investment. However, this changed in Q2 with both having raised $1.9B. This may indicate appetite for new innovation and growing investor confidence. Late-stage investment totalling $2.6B is heavily concentrated (69%) in a single company, Sierra Space. While 2023 saw near record investment, continued growth will depend on large government contracts and commercial partnerships to unlock more substantial, later-stage rounds.

BY STAGE • CUMULATIVE ROUND SHARE



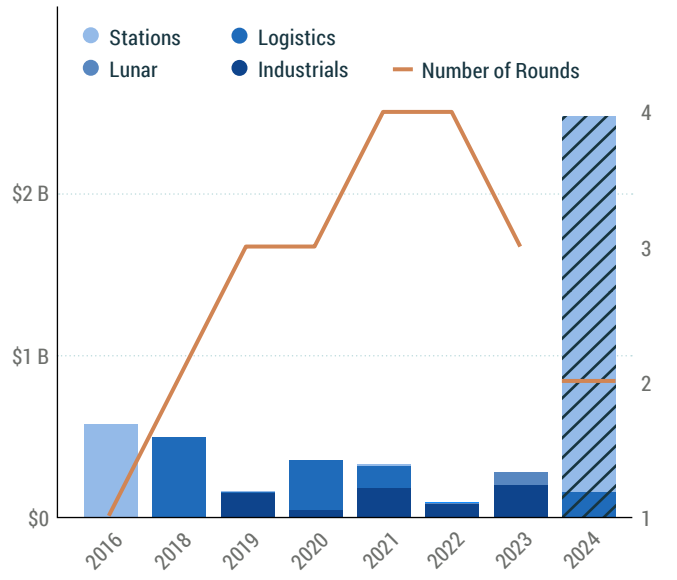
Early-stage rounds accounted for 94% of total in Q2 and 80% of all rounds since 2015. In contrast, growth-stage represented only 10%, and just 5% for late-stage. A handful of companies, including Space Capital portfolio companies LeoLabs and Impulse Space, have been able to grow significantly with accelerating commercial revenues as well as government contracts. Sustained momentum in 2024 will require strong revenue growth to demonstrate viability of these nascent markets.

TOP DEALS IN THE QUARTER

COMPANY	ROUND	AMOUNT
Privateer Space	Series A	$57 M
Origin Space	Series A	$15 M
Infinite Orbits	Series A	$13 M
Psionic	Series A	$10 M
Vyoma	Seed	$5 M
Stars Edge	Seed	$3 M
Blue Skies Space	Seed	$3 M
Space Quarters	Seed	$1 M
Blackswan Space	Seed	$1 M
AstronetX	Seed	$1 M

Seven Logistics investments dominated Q2 accounting for 75% of the capital raised. This was led by SSA company Privateer Space, which recently raised $57M in Series A financing and acquired EO analytics firm Orbital Insight. Origin Space, the first Chinese company dedicated to the utilization of in-space resources, raised a $15M Series A round. Interestingly, there are seven non-US companies on the list, reflecting international growth in this category.

EXITS BY INDUSTRY

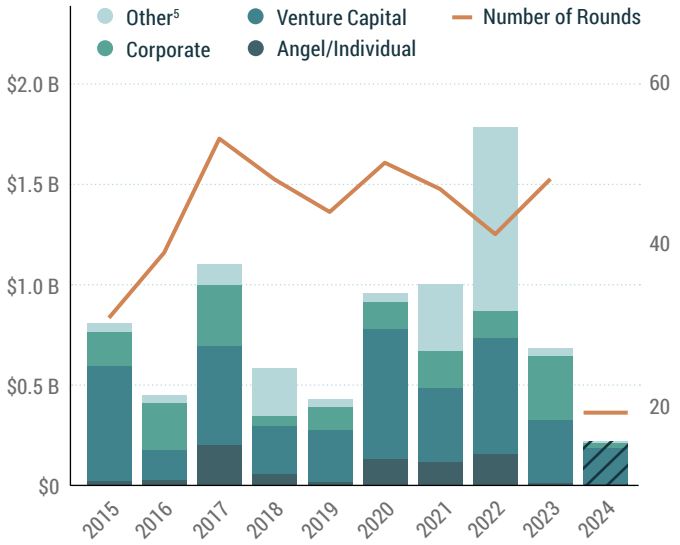


Emerging Industries closed its largest acquisition during the quarter with Ingersoll Rand acquiring space suit company ILC Dover for $2.3B, marking the first exit transaction in the category to exceed $1B. Astroscale debuted on the Tokyo Stock Exchange, becoming Japan's second publicly traded Infrastructure company after iSpace. However, public companies in this category have generally underperformed, struggling with consistent financial metrics due to the market's early development and high CapEx.

Distribution

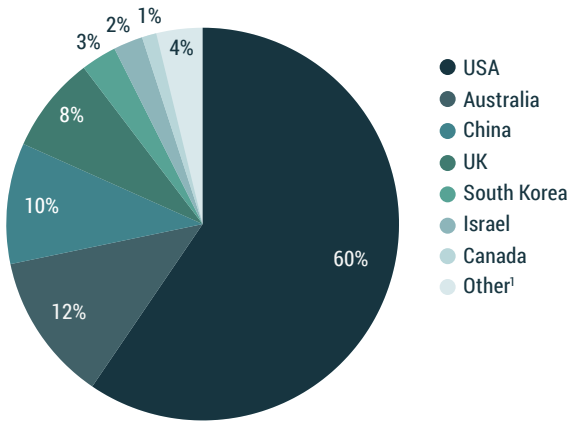
Hardware and software to connect, process, and manage data from space-based assets

ANNUAL INVESTMENT SOURCE



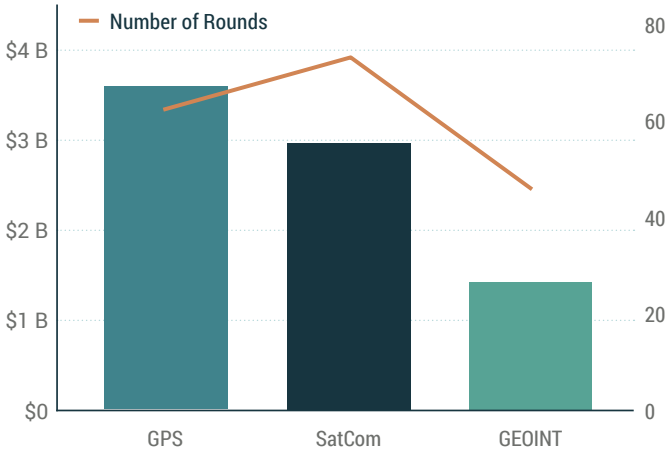
Distribution investment and deal activity were flat QoQ with $0.1B invested across 9 rounds. While total funding is less than other tech layers, innovations within Distribution have reached critical milestones and help monetize the Infrastructure being built. AI advancements are revolutionizing geospatial data processing and mapping, enabling real-time insights and SatCom companies are unlocking new direct-to-device and edge computing capabilities and use cases.

CUMULATIVE INVESTMENT GEOGRAPHY



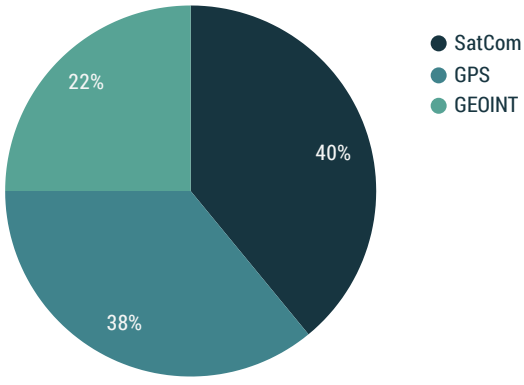
Over the past decade, U.S. companies represent 60% of the total investment, followed by Australia at 12%, and China at 10%. The U.S. funding landscape is diversified between GPS/GNSS and SatCom, while Australia specializes in GEOINT and China's investments lean predominantly towards GNSS. With increasing need for resilient ubiquitous communications and real-time spatial insights, it's possible that the U.S. and China will experience increased investments at this layer of the stack.

BY SECTOR • CUMULATIVE INVESTMENT AMOUNT



Distribution has seen $8.0B invested across 180 companies over the past decade. During that time, GPS companies attracted 45% of the total investment, with SatCom accounting for 38%. GEOINT has shown rapid growth constituting 56% of deal activity in Q2 and 55% of investments YTD. Since 2022, GEOINT has received 38% of total funding, significantly higher than its 10-year average of 18%.

BY SECTOR • CUMULATIVE ROUND SHARE



SatCom has led the round share with 39% of activity in Distribution over the past decade. Recent trends in SatCom involve advancements that enable satellite operators to process data more efficiently and gain faster insights, utilizing innovations in multi-orbit network orchestration, in-space data centers, and end-to-end connectivity solutions. GEOINT continued its rise as the most active sector in Q2, with 86% of rounds since 2015 being early-stage, highlighting its emerging state and the need to unlock growth potential.