



SPACE INVESTMENT QUARTERLY

Q4 2019

The most comprehensive market intelligence
– from the investors at the forefront



WELCOME TO THE Q4 2019 EDITION OF THE SPACE INVESTMENT QUARTERLY.

With \$767M invested into Space companies in the fourth quarter, total funding for the year has reached \$5.8B, making 2019 the largest year on record for Space investment. Cumulatively, \$25.7B has now been invested into 535 unique space companies since 2009.

Funding for the year was primarily concentrated in large, later-stage deals. In addition to SpaceX, Blue Origin, and OneWeb's \$1B+ investment rounds, we saw a record number of Series C+ raises from companies like Relativity Space (\$140M), LandSpace (\$70M), Satellogic (\$50M), Orbital Insight (\$50M), and Spire (\$40M). We believe this reflects a healthy maturation of the entrepreneurial space ecosystem as early-stage companies graduate from concept to growth.

While investment has primarily been concentrated in the U.S., 2019 provided evidence that the Entrepreneurial Space Age has gone global with the amount of non-U.S. funding doubling Y/Y. Q4 2019 was particularly active for China, with 34% of funding in the quarter.

Capital was invested primarily in the Launch and Satellite industries in 2019, as it was for most of the decade. Going forward, we expect robust deal volume in Satellites to continue as applications for satellite imagery develop. However, we also anticipate greater activity in nascent markets as new startups are able to leverage pre-existing infrastructure and government programs like NASA's Tipping Point and NextSTEP, the Air Force's AFWERX, and the Space Force's Commercial Solutions Opening.

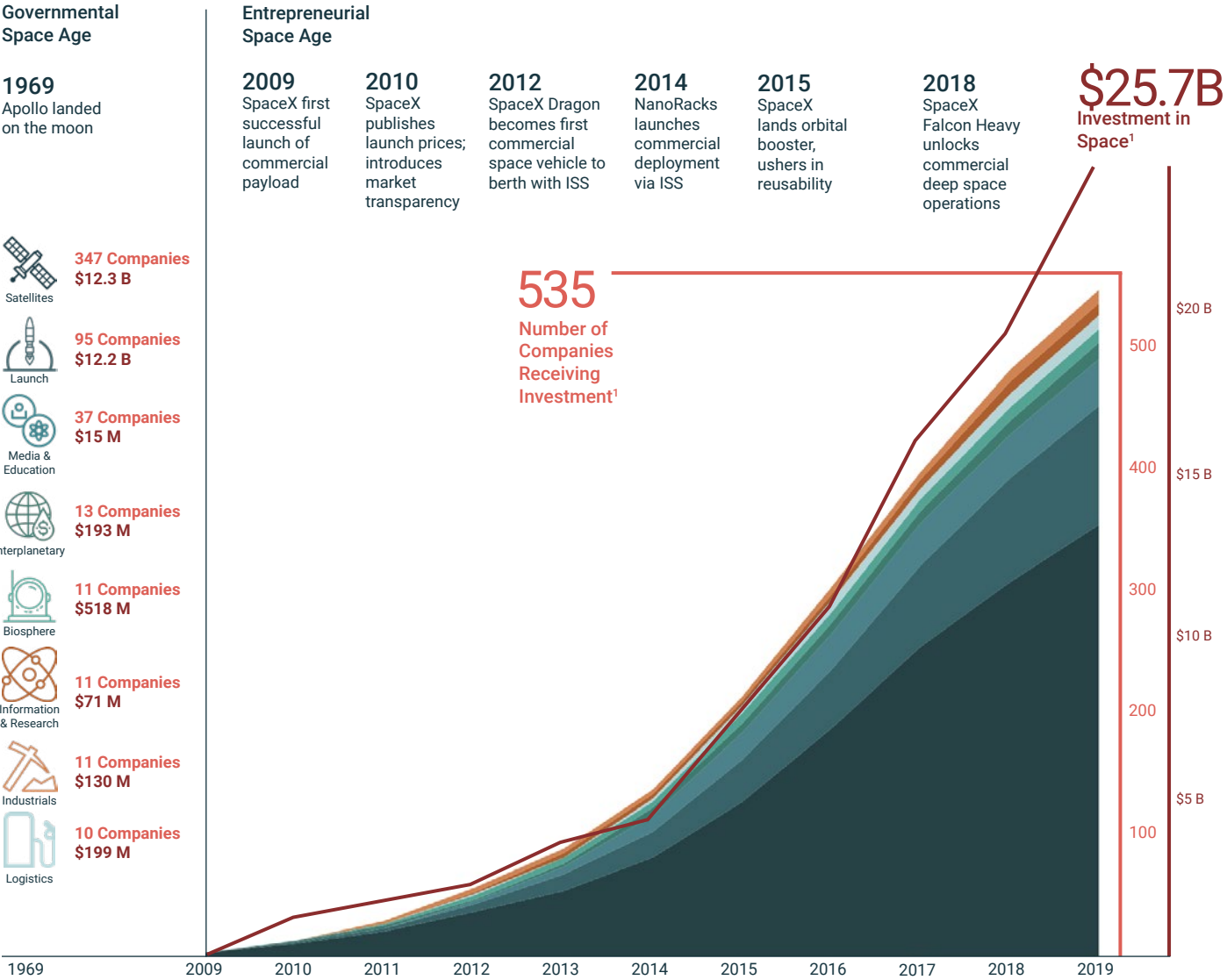
LeoLabs, a Space Angels portfolio company, is a critical example of a startup building on top of space infrastructure. In October, the company unveiled its new Kiwi Space Radar capable of tracking objects as small as two centimeters in low Earth orbit. With thousands of satellites in orbit and tens of thousands expected to be launched in the coming years, this technology is especially important as companies seek clear orbits to safely operate in.

This past decade, the entrepreneurial space ecosystem has proven itself to be financially robust, increasingly global, and thematically diverse. With the strong momentum going into the next decade, we at Space Angels are incredibly excited to continue supporting the entrepreneurs at the forefront of innovation in the space economy.

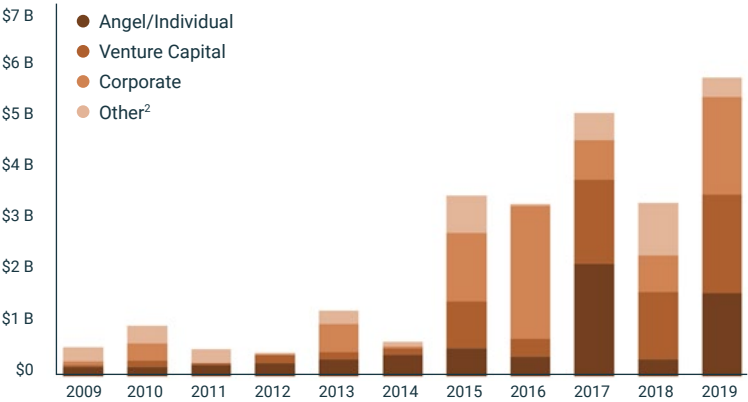


DAWN OF THE ENTREPRENEURIAL SPACE AGE

Cumulative Equity Investments From 2009 To Present



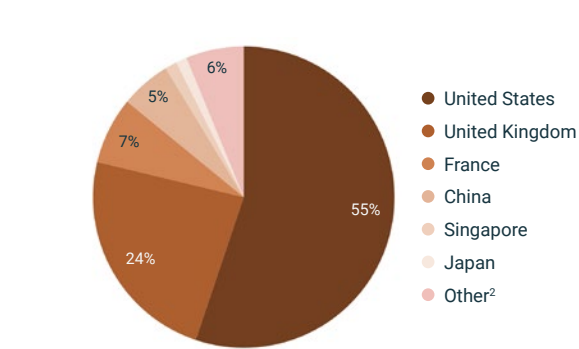
Annual Investment Source



Funding in 2019 increased 73% Y/Y and surpassed 2017 as the largest year on record for Space investment by nearly \$700M. Capital was evenly distributed among Angel/Individual, Corporate, and Venture Capital, with each contributing about a third of total investment.

4. Cumulative non-governmental equity investment
2. Other includes Foundations, Private Equity, Sovereign Wealth Funds, Mutual Funds, Crowd Platforms, etc.

Cumulative Investment Location



The U.S. continues to lead global investment in Space, receiving 55% of investment since 2009. However, China was particularly active in Q4, receiving 34% of total investment in the quarter. Capital in China went primarily to the Satellite and Launch industries.

YEAR-TO-DATE EQUITY INVESTMENTS

Investment Amount

\$5.8B

NUMBER OF ROUNDS
198

EARLY-STAGE³ INVESTMENT

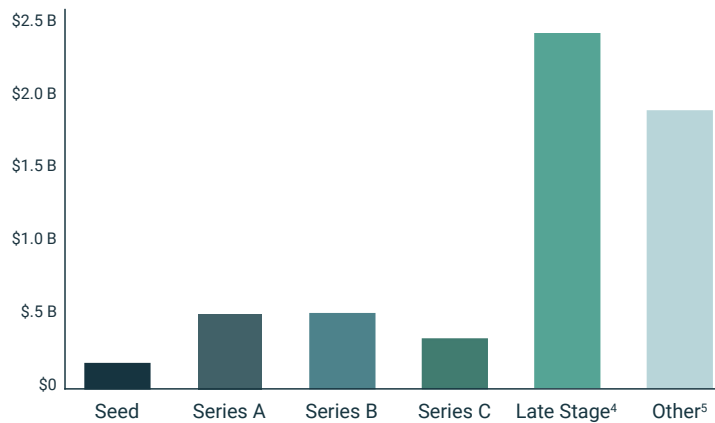
\$686M

EARLY-STAGE ROUNDS

143

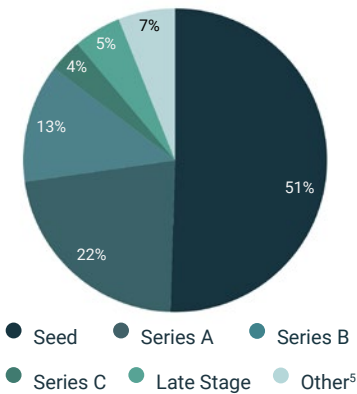
By Stage

Investment Amount



Capital was mostly concentrated in Late Stage with SpaceX and OneWeb each raising \$1B+ in later stage rounds. Jeff Bezos' self-capitalization of Blue Origin made Other the second largest investment category.

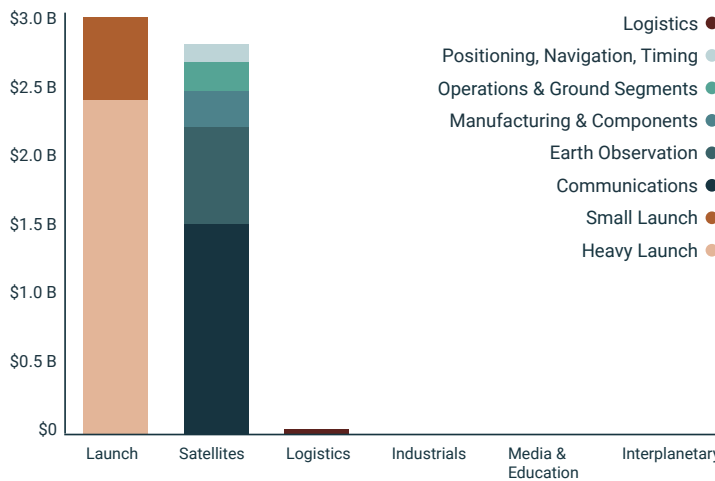
Round Share



In 2019, the share of Seed and Series A deals declined slightly, while Series C, Late Stage, and Other increased. Growth in the number of Series C deals was most notable, increasing 75% Y/Y. Q4 was particularly active for Series C deals such as Landspace, Satelles, and Satellogic.

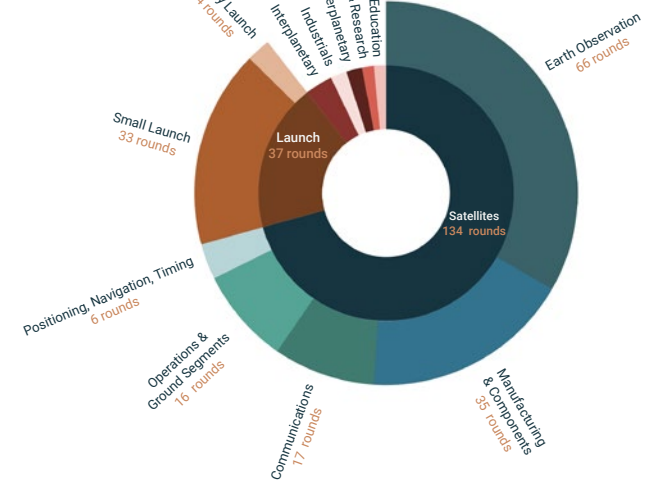
By Industry & Sector⁶

Investment Amount



In 2019, the Heavy Launch sector received the most capital in 2019, driven by Blue Origin and SpaceX. Within Satellites, Positioning, Navigation, and Timing was particularly strong thanks to large raises from Qianxun SI and Hawkeye 360.

Round Share



With satellite imagery creating dozens of new applications on Earth, it's no surprise that the majority of deal activity occurs within the Earth Observation sector (33%). Going forward, we expect that trend to continue but we also anticipate more activity in nascent markets as new startups are able to leverage pre-existing infrastructure and government programs like NASA's Tipping Point and NextSTEP, the Air Force's AFWERX, and the Space Force's Commercial Solutions Opening.

3. Early Stage is comprised of Pre-Seed, Seed, and Series A deals
4. Late Stage is comprised of Series D+ and Liquidity Rounds

5. "Other" includes non-traditional investments and self-capitalization from Jeff Bezos, Robert Bigelow, Richard Branson, and Elon Musk, who we have classified as individual investors providing large investments (hundreds of millions) in their own companies during unclassified rounds
6. See [industry segmentation chart](#).



INVESTMENT ACTIVITY

Select Space Angels Portfolio Fundraising YTD

COMPANY	ROUND	AMOUNT	LEAD
SpaceX	Series K	\$540,744,228	Undisclosed
SpaceX	Series J	\$226,800,224	Baillie Gifford
SpaceX	Series L	\$214,000,000	Ontario Teachers' Pension Fund
HawkEye 360	Series B	\$70,000,000	Undisclosed
Isotropic Systems	Series A	\$14,100,000	Boeing HorizonX Ventures

Eighteen Space Angels portfolio companies have raised capital across 22 rounds in 2019, representing 21% of total equity investment across the Space Economy. In addition to the companies listed above, we also welcomed Picterra, FluroSat, Totum Labs, SpeQtral, and Arbol to the portfolio this year.

Top 10 Market Investments YTD⁷

COMPANY	ROUND	AMOUNT	LEAD
Blue Origin	Self-Capitalized	\$1,400,000,000 ⁸	Jeff Bezos
OneWeb	Undisclosed	\$1,250,000,000	Softbank Group, Grupo Salinas
SpaceX	Series K	\$540,744,228	Undisclosed
SpaceX	Series J	\$226,800,224	Baillie Gifford
SpaceX	Series L	\$214,000,000	Ontario Teachers' Pension Fund
Qianxun SI	Joint Venture	\$140,470,000	China Reform Hlds Corp, Shanghai Intl Grp
Relativity Space	Series C	\$140,000,000	Bond, Tribe Capital
Loon	Joint Venture	\$125,000,000	HAPSMobile (Softbank)
Virgin Galactic	PIPE	\$120,000,000	Chamath Palihapitiya, Horizon X
Synspective	Series A	\$80,000,000 ⁹	aSTART

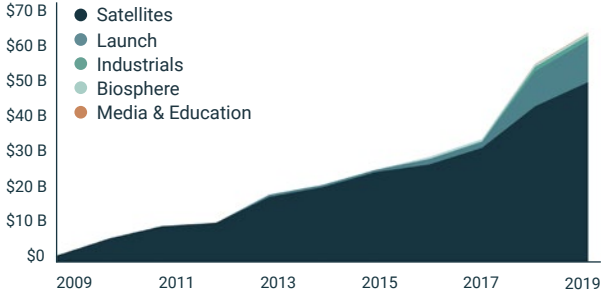
Investment in 2019 was particularly concentrated within these ten deals, representing 73% of total investment for the year. New additions to this list include Qianxun SI, a Chinese precision navigation company that raised \$140M from China Reform Holdings Corporation and Virgin Galactic, which raised \$120M through a PIPE from Chamath Palihapitiya and Boeing HorizonX Ventures.

Select Acquisitions YTD

SELLER	BUYER	AMOUNT
Inmarsat	Apax Partners	\$3,400,000,000
Dynetics	Leidos	\$1,650,000,000
Hispasat	Red Eléctrica de España	\$1,110,000,000
Genscape	Wood Mackenzie	\$364,000,000
Newtec	ST Engineering	\$281,300,000

In Q4, Dynetics, a propulsion systems and small satellite developer, was acquired by Leidos for \$1.65B, making it the second largest acquisition of the year. Also in Q4, Scisys, a satellite ground segment infrastructure company, was acquired by CGI Group for \$103M.

Cumulative Acquisitions by Sector



With a number of venture-backed Space companies graduating to the Series C+ stage, we expect to see exits accelerate in the next couple of years. This will be an essential data point to demonstrate that robust financial returns can be achieved in the Space sector.

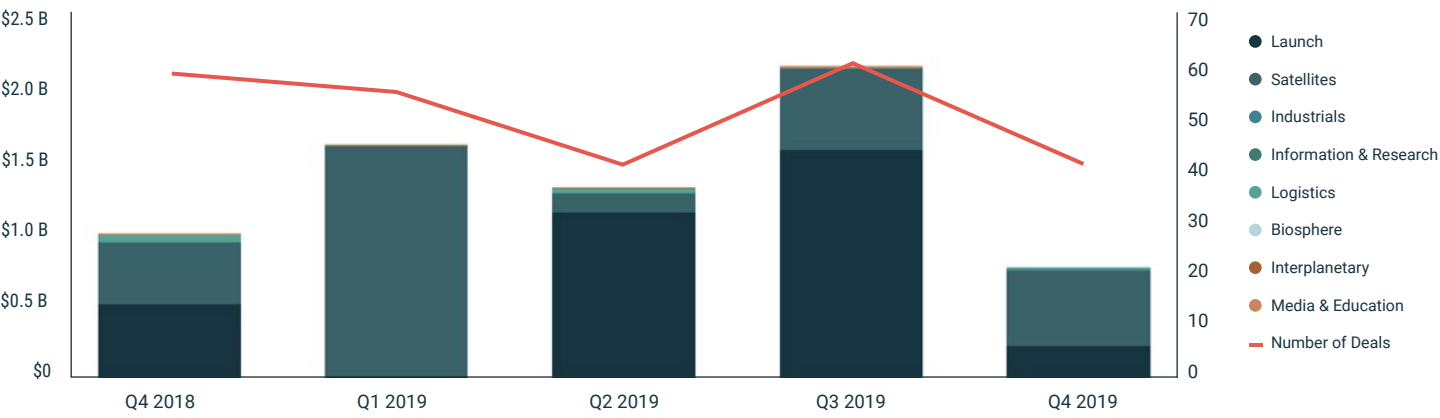
7. Deals listed based on totality of available data
8. Based on legal filings, public disclosures, and media publications, we estimate \$1.4B went to Blue Origin following Jeff Bezos' sale of \$2.8B of Amazon stock.

9. Although headlines show Synspective raising \$100M in July, that figure represents total funding since formation.



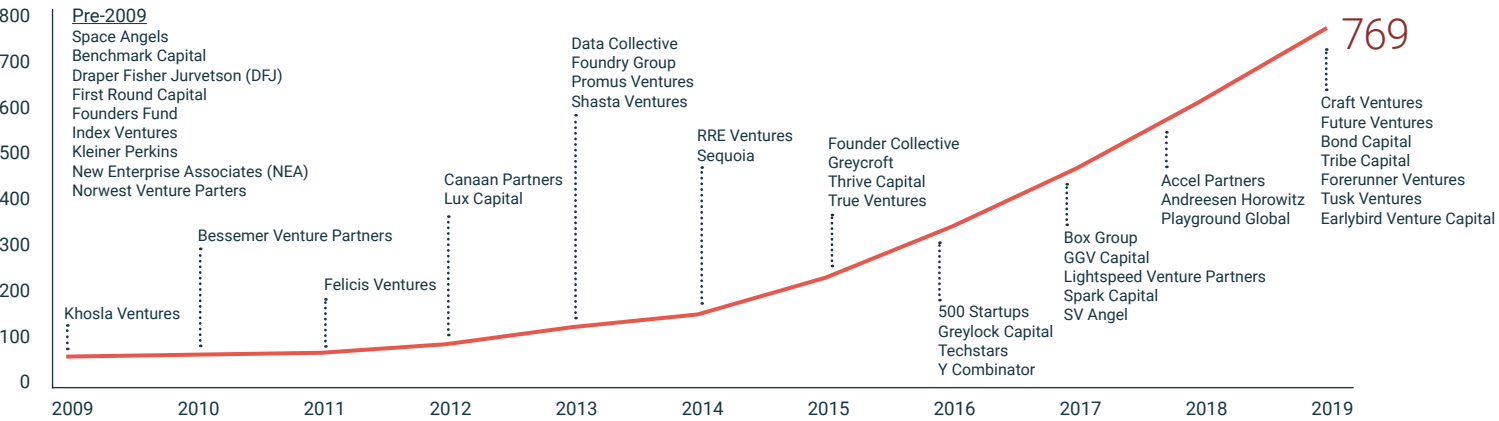
INVESTMENT ACTIVITY

Investment Amount and Deals by Quarter



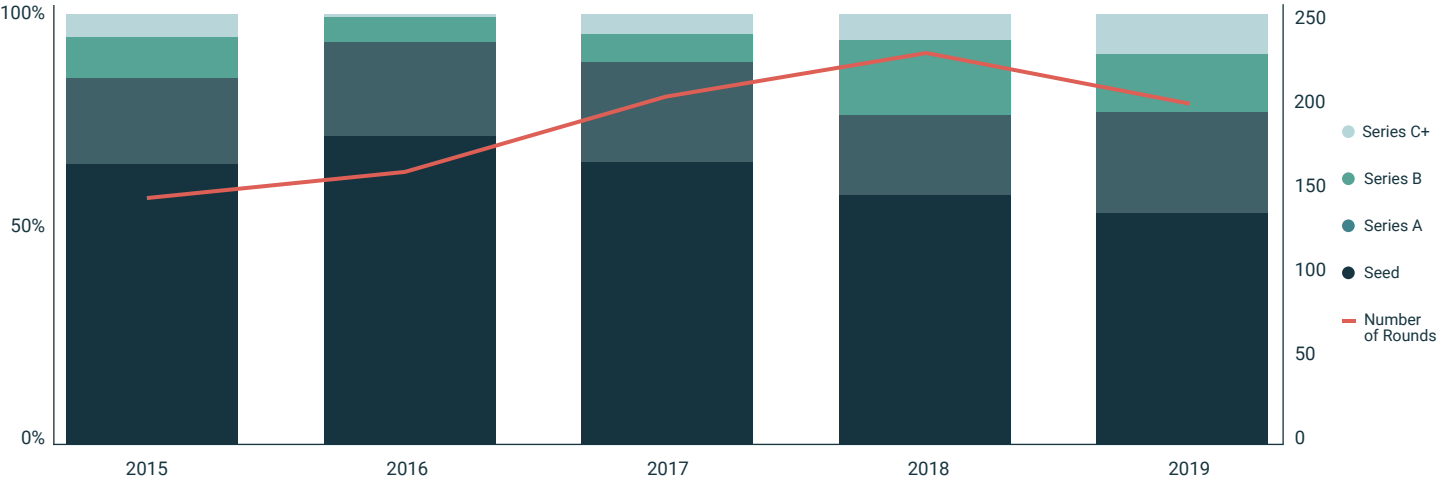
Investment in Q4 2019 decreased 23% Y/Y and 64% Q/Q as both Q4 2018 and Q3 2019 saw substantial investment. The Y/Y decline in investment was driven by a decline in deal volume, while the Q/Q decline was driven by a decline in deal volume and average deal size.

Cumulative Number of Venture Funds Investing in Space



In 2019, a record 148 new venture firms made their first investments in the Space economy, bringing the total to 769. In Q4, Earlybird Capital, a prominent European venture fund, did its first deal in the Space economy, leading Isar Aerospace's Series A round alongside Airbus Ventures.

Total Rounds by Stage



In 2019, we saw a record number of Series C+ deals. We believe this reflects a healthy maturation of the entrepreneurial Space ecosystem as early-stage (Seed, Series A) companies graduate from concept to growth (Series B, Series C).



With \$767M invested into Space companies in the fourth quarter, total funding for the year has reached \$5.8B, making 2019 the largest year on record for Space investment. Cumulatively, \$25.7B has now been invested into 535 unique space companies since 2009. This past decade, the entrepreneurial space ecosystem has proven itself to be financially robust, increasingly global, and thematically diverse. With the incredible momentum going into the next decade, we at Space Angels are incredibly excited to continue supporting the entrepreneurs at the forefront of innovation in the space economy.

SELECT PORTFOLIO MILESTONES

- LeoLabs unveils next generation with Kiwi Space Radar
- SpaceX reaches parachute testing milestone
- Made In Space Europe wins LSA contract to develop inexpensive robotic arm
- SpaceX tests Crew Dragon abort thrusters
- Isotropic Systems Completes Bi-Directional Over-the-Air Satellite Tests
- Made In Space to launch commercial recycler to space station
- SpaceX launches second batch of Starlink broadband satellites

ADDITIONAL RESOURCES

The [Space Angels Podcast](#) regularly interviews commercial space entrepreneurs and industry experts, providing insight into the opportunities and risks of early-stage space investing.

[Information Central](#) dives deeper into the commercial space economy covering major sectors, innovative technologies, and public-private partnerships.

Are you ready to invest in the most compelling space startups?

APPLY NOW



OUR METHODOLOGY



Space Angels launched the *Space Investment Quarterly* in October 2017 with the aim of uncovering insights about investing in the space economy. The data shown in this report is gathered from a number of sources across many categories, and no single piece of data can be added to our databases until confirmed by multiple sources. Our reported data is subject to change over time as previously undisclosed deals are added to our database. Below is a select list of our data sources:

Investment Databases	Crowd Platforms	Confidential Sources	Public Announcements	News
<ul style="list-style-type: none">PitchbookCrunchbaseMattermarkCB Insights	<ul style="list-style-type: none">AngelListSeedInvestKickstarterIndiegogo	<ul style="list-style-type: none">Diligence ProcessCompany ManagementCo-InvestorsCommercial PartnersGovernment Partners	<ul style="list-style-type: none">Press ReleasesSEC FilingsEvents	<ul style="list-style-type: none">BloombergCNBCFortuneSpaceNewsTechCrunch

ABOUT

Space Angels is the leading source of capital for early-stage space companies. Founded in 2007, our portfolio includes many of the most prominent entrepreneurial companies in the Space economy. Through a robust and streamlined web platform, Space Angels provides unparalleled deal access and comprehensible intelligence to its accredited investor members, making it easy to discover, select, and invest in the most compelling space startups.

ASSETS

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