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Space Entrepreneurship and Investment: The Practitioners' Perspectives (1)

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START-UP SPACE: GLOBAL INVESTMENT TRENDS

Abstract

Start-up space ventures have attracted over US\$60 billion in investment since the year 2000. This paper identifies and analyzes publicly-reported seed, venture, and private equity investment in start-up space ventures as they grow and mature, from 2000 through the end of 2022. Debt financing, merger and acquisition (M&A), and initial public offering (IPO) activity is also identified where applicable to provide a complete picture of the capital available to start-up ventures in the space industry. In 2022, global venture investment slowed across all industries in the midst of an economic slowdown and the start-up space sector was no exception. After a record breaking 2021 brought in \$15 billion to start-up space ventures, investment in 2022 declined to about \$9 billion. Still, this figure represents the second most active year ever for start-up space ventures and the rolling 5-year average of investment continues to increase, indicating that interest in the sector remains strong.

This paper finds over 1,500 unique investors in start-up space firms in the 21st century across six investor types. Venture capital remained the primary source for funds, while public markets (which emerged as a significant source of capital in 2021) declined in 2022. On the other hand, investment amounts from seed funding, debt financing, and mergers/acquisitions saw an increase in 2022, driven by several large deals in each category. This paper characterizes the evolving market of start-up space investors, especially in the context of an economic downturn. Key questions this paper will address include: How has global investment activity in the start-up space industry evolved over time? How large is the start-up space industry, in terms of investment magnitude and number of companies and investors? How many start-up space ventures have received private financing, and from whom? How has investment activity in start-up space ventures differed between sectors? How is investment activity in space start-ups proliferating internationally? How much M&A activity has occurred and how does it compare to prior years? How correlated is start-up space investment activity with broader private investment industry dynamics?

This paper seeks to aid and inform decision-making in industry, government, and academia by providing the space community with rigorous analyses of industry dynamics. Additionally, this paper seeks

to educate investors, the aerospace industry, and the wider public about activity in the emerging start-up space ecosystem.