Paper ID: 51862 oral

## IAF BUSINESS INNOVATION SYMPOSIUM (E6)

Finance and Investment: The Practitioners' Perspectives (2)

Author: Mr. Manny Shar Bryce Space and Technology, United Kingdom

Ms. Jamil Castillo
Bryce Space and Technology, United States
Ms. Gwen Mazzotta
Bryce Space and Technology, United States
Ms. Luc Riesbeck
Space Policy Institute, George Washington University, United States
Ms. Anna Wieger
George Washington University, United States
Ms. Carissa Christensen
Bryce Space and Technology, United States

START-UP SPACE: GLOBAL INVESTMENT TRENDS

## Abstract

Start-up space ventures have attracted over US\$21 billion in investment since the year 2000, including \$7.9 billion in early and late stage venture capital, \$3.1 billion in seed financing, and \$4.5 billion in debt financing. This cumulative study has identified nearly 700 unique investors in start-up space firms in the 21st century across six investor types (angel investors, venture capital firms, private equity firms, banks, corporations, and public markets), an increase of 120 from 2017. This paper analyzes space investment trends globally, including the geographic distribution of investors and space start-ups. Though start-up space companies and investors are still concentrated in the United States, investment and start-up activity is quickly diversifying to other world regions comprising dozens of countries. For example, this report highlights the increasing investment activity in Chinese ventures, as well as the nuances of Chinese commercial space capability development in recent years. Key questions this paper will address include:

- How has global investment activity in the start-up space industry evolved over time?
- How does investment activity in 2018 compare to overall investment since 2000? How does it compare to 2017 investment activity?
- How large is the start-up space ecosystem, in terms of investment magnitude and number of companies and investors?
- How many start-up space ventures have received private financing and from whom?
- Where are space start-ups and investors headquartered?
- What types of capital are start-ups attracting year-to-year, and how does that differ by region?

The paper is based on an extensive set of validated, 21st century publicly sourced investment data providing insight into worldwide start-up space trends. This report 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 report seeks to educate investors, the aerospace industry, and the wider public about activity in the emerging start-up space ecosystem.