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MAJOR TRENDS DRIVING RECORD LEVELS OF PRIVATE INVESTMENT IN SPACE VENTURES

Abstract

In the past 10 years (2005-2014), over \$13 billion of non-government funding has been invested in commercial space ventures. The majority of this has gone to satellite companies and launch providers, but hundreds of millions have gone into new market verticals like human spaceflight, space habitats, and space resources. Nearly 20% of that \$13B total has come from angels and venture capitalists, whose involvement has increased to 25% of the total over the past four years. During that period (2011-2014) specifically, \$5.5 billion of non-government funding was invested in commercial space ventures, 40% of which went to companies founded in 2002 or later. With Google's investment in SpaceX's constellation concept, OneWeb's investment from Virgin, Orbcomm's acquisition of Skywave, and the pending acquisition of Exelis by Harris, 2015 is already setting private investment records just two months in.

As often happens in technology, a number of advances in different fields are converging to disrupt and transform the space industry. Most notably, reduced launch costs, miniaturization of technology, and standardization are combining to bring the space sector within the reach of startups and entrepreneurs at unprecedented scale. We are just beginning to see the disruptive role that entrepreneurs will play in this sector. Those who study innovation ecosystems will recognize the mature nature of the incumbent players and these new innovations as the front end of a new innovation S-curve (to use business school terminology). In the late 90's, enthusiasts and a number of large failures marked a false start in the private space race. But what's different this time around is extraordinary access to space, as well as resourceful entrepreneurs with prudent business plans that don't require \$1 billion investment.

Venture Capitalists and institutional money have become increasingly interested in small satellite constellations and small satellite launch systems because these are large existing markets, which are being disrupted. Most of the value from these markets comes from things that they are familiar with: big data, information services, and software solutions. When it comes to truly market-creating innovations, Angels play a vital role. Whereas 25% of total non-government space investment is attributable to angels and venture capitalists, 80% of non-government investment in new market verticals has come from Angel investors alone. Space Angels Network would like to unveil these important facts/figures at IAC and highlight the essential role of angel investors in the development of the space industry.