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NEW SPACE : RISKS AND OPPORTUNITIES IN THE CURRENT CYCLE OF SPACE
ENTREPREUNERSHIP

Abstract

The paper will review the factors and the evolution of space entrepreneurship understood through the concept of “New Space”. With an emphasis on the U.S private space sector, the paper will expose the roots of current initiatives from the end of the Apollo program to the early 2000s when two majors events institutionalized the New Space, pursuant to the recognition by the US government that the private sector can serve its business policy needs, namely : - the first contract to purchase Earth observation images by the NGA (ClearView) from DigitalGlobe and GeoEye following a presidential directive recommending the use of commercial imagery by the government; - the outsourcing by NASA of cargo services to the International Space Station to the private sector through the COTS (Commercial Orbital Transportation) program. In 2008, two CRS contracts were awarded to SpaceX and OSC. The New Space in the USA is now is dominated by SpaceX which managed over a period of 12 years to emerge as a new player in space transportation and to team with Google to develop a smallsat factory. However, the concept is not new and is not limited to SpaceX. A new wave of New Space projects attracting venture capital (VC) and private equity (PE) from the Silicon Valley emerges in two forms that will be presented in terms of risks and opportunities: - constellations of small satellites for communications infrastructure and for Earth imagery: the proliferation of projects for small and large constellations of small and very small satellites attracts new projects of dedicated launchers with a risk of an investment bubble developing in both areas; - new missions in different locations of space (near earth, geostationary, distant space), such as suborbital tourism, inspection and repair of satellites in-orbit, capturing debris in-orbit, exploitation of lunar or asteroids resources. Projects in these highly technological and totally new areas have not yet reached the concept demonstration phase.