

IAF SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)  
Small Launchers: Concepts and Operations (7)

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CURRENT COMMERCIAL LANDSCAPE OF SMALL SATELLITE LAUNCH SERVICES IN THE US  
AND EUROPE**Abstract**

The small satellite launch market is booming. The relatively low cost of manufacturing cube satellites and nano-satellites have made the idea of “mega constellations” much more realistic. However, access to space is still expensive. Despite innovative work by national space agencies and private companies like SpaceX on cost-saving measures such as reusable boosters, cost to low and geosynchronous orbits are still high. As small satellites become more accessible to manufacture, some companies and governments are beginning to develop dedicated small satellite launch solutions. However, many space policies in Europe and the US are legacies of the Apollo era and are over 50 years old. The days when governments (and only a select few governments at that) were the only players in space are over, but some policies still reflect this past reality. Companies like SpaceX and Virgin Galactic, both originally bank rolled by billionaires, are not the norm in the small satellite launch market. Many smaller firms seeking to break into the market lack the immense start-up funds required to cover the initial costs of entering the launch market. This creates a fundamental stumbling block for small, agile satellite developers. Nations which wish to attract and retain the growing launch market must explore solutions to this problem. This paper evaluates the current small satellite landscape in the United States and Europe, including market and policy analyses. The analysis will form the basis of policy recommendations to governments and national space agencies (specifically NASA and the ESA) to make their national trade spaces as attractive to this new market as possible.