

**BUSINESS INNOVATION SYMPOSIUM (E6)**  
**New Space Industry Applications (3)**

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**SUBORBITAL SPACEFLIGHT MARKET IDENTIFICATION AND CLASSIFICATION****Abstract**

This paper summarizes a study conducted by The Tauri Group for Space Florida to define and characterize the markets reusable suborbital vehicles will address. The goal of the study was to define collectively exhaustive and mutually exclusive market categories, identify drivers, and characterize current activities. This information would serve as a basis for future market forecasting. The benefits of this study from the perspective of industry include a shared understanding to improve the quality of industry discourse, a consistent taxonomy for communications with external partners, and the accessibility of information in one source for industry participants.

This study is a unique effort to synthesize all available information on future reusable suborbital markets and present this information for public distribution (private companies that show signs of having conducted similar studies have not released this information). A comprehensive literature review identified and analyzed possible applications for these vehicles. These applications were then cross referenced with usage, form factor, and program information. Targeted research into current activities in these areas describes the type of client for each application (civil agency, military, university, private industry, individual) as well as their requirements (view, g-loads, power, volume, time in microgravity). Interviews with leaders from each segment solicited additional information on requirements, industry dynamics, and potential funding sources. The study paid special attention to potential customers that are outside what is traditionally considered the space industry, providing a fresh perspective on the value proposition offered by these vehicles. The Tauri Group identified 7 markets, defined based on similar purpose, activities and customers. Those markets are:

- Commercial human spaceflight
- Basic and applied science
- Aerospace technology test and demonstration
- Remote sensing
- Education
- Media PR
- Point-to-point transportation

Each market is characterized in terms of the opportunities provided by suborbital spaceflight, the barriers to growth in the market, and the customers for the suborbital spaceflight. (Customers include both users and economic buyers.) This and subsequent analyses will assist the communication between the commercial suborbital industry and its stakeholders, including investors, policy makers, regulators, researchers, and service providers, about suborbital activities and opportunities.