

BUSINESS INNOVATION SYMPOSIUM (E6)
Entrepreneurship and Investment for Commercial in-Space Activities (2)

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THE ECOSYSTEM OF NANOSATELLITES – A NOVEL APPROACH TO IDENTIFYING BUSINESS
OPPORTUNITIES IN THE NANOSATELLITE SPACE

Abstract

James Moore in a celebrated paper in the 1990s popularized the ecosystem approach to analyzing dynamic business relationships.

This paper presents the outcome of a study of the Nanosatellite sector using just this approach to identify barriers for growth and resulting profitable business opportunities to overcome these barriers and support a vibrant Nanosatellite sector.

Moore defined a business ecosystem as “An economic community supported by a foundation of interacting organizations and individuals—the organisms of the business world”. Using several ecological metaphors like “business niche” and “symbiotic relationship” he suggested that companies are part of a business environment and need to understand their interdependencies to all other market participants so defend their “niche” against new arrivals.

These interdependencies and relationships however are dynamic and not static. They can be cooperative at times while at other times being competitive. One example is the relationship between space agencies and the commercial sector. In the first phase of budget discussions with the government, space agencies and private companies are in alliance with each other, working together to maximize the budget allocation to the space sector. In the second phase however, once agencies start to allocate funds to projects, they find themselves on opposite sides of the negotiation table from space agencies.

As part of the study presented in this paper, detailed interviews with agencies, regulatory bodies, private companies, universities and academia were performed. Analyzing this data together with industry research lead to the identification of three main barriers for success in the Nanosatellite market and resulting business opportunities to remove those barriers and enable growth in the Nanosatellite market.