

IAF BUSINESSES AND INNOVATION SYMPOSIUM (E6)
Public-Private Partnerships: Traditional and New Space Applications (2)

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THE TECHNOLOGICAL PARADIGM SHIFTS IN SPACE: A LITERATURE REVIEW.

Abstract

Nowadays, New Space is the buzzword of space vernacular, but what does it entail and where does it end? The term makes it clear that there are technological paradigm shifts in the space sector and implies there is an “old” way in space activities, the traditional space industry. This paper seeks to perform a Systematic Literature Review of New Space to categorize its elements. Drawing on Schumpeter’s concepts of creative destruction and economic cycles, Rosenberg’s technological revolution, and Freeman’s innovation system, coupled with the role of the State, the paper integrates insights from innovation literature to provide a theoretical framework. The analysis extends to the technological domains of space, including rockets, satellites, ground stations, data handling, and applications, demonstrating how each has innovated to define what constitutes New Space. The paper concludes by offering a glimpse into future ventures such as space mining, space traffic management, and advanced manufacturing, prompting a consideration of when a newer term should be introduced.