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THE POTENTIAL OF PUBLIC-PRIVATE PARTNERSHIPS (PPPS) IN SPACE EXPLORATION THROUGH THE LENS OF 971SPACE AND SADEEM SPACE

Abstract

The paradigm of space exploration and utilization is rapidly transforming through the integration of public-private partnerships (PPPs), paving the way to a new era of innovation, economic growth, and technological advancement. This paper examines the collaborative interactions between government bodies and private sector innovators, specifically using 971Space and SADEEM Space as case studies, to highlight emerging best practices and the broadening of the space economy. Through detailed analysis of case studies and ongoing projects of these organizations, this paper seeks to highlight the crucial influence of PPPs in advancing both established and emerging space endeavors. This includes satellite-based services and the rapidly evolving space sector. 971Space and SADEEM Space, UAE-based startups, demonstrate the significant impact of PPPs on the space industry. 971Space specializes in technical consultancy and engineering services, alongside SADEEM Space's innovations in CubeSat systems, onboard computers, communication subsystems, and electrical power systems for space missions. Their contributions underlines PPPs' capacity in space exploration and utilization, fostering the emergence of new markets and technological progress. PPPs in the space sector harness the agility and innovation of the private sector, enabling faster development and deployment of space technologies. These partnerships facilitate the sharing of risks and rewards, drive technological advancements, and enable the execution of ambitious projects that might be beyond the reach of individual entities. By combining resources, expertise, and capabilities, PPPs accelerate the development of the space economy, enhance access to space, and ensure the sustainable exploration and utilization of outer space resources. This paper further explores the challenges and opportunities presented by PPPs in the space sector, including regulatory hurdles, financial risks, and the need for sustainable practices. Through an analysis of traditional and new space applications facilitated by 971Space and SADEEM Space, we propose a set of emerging best practices that can guide the future development of PPPs in the space industry. These practices emphasize the importance of clear regulatory frameworks, shared risk management strategies, and the integration of sustainability principles to ensure the long-term viability of space activities. The partnership between public entities and private companies like 971Space and SADEEM Space is pivotal in shaping the future of space exploration and commercialization. By fostering innovation, facilitating access to space, and promoting sustainable development, PPPs hold the promise of unlocking the vast potential of space. This paper calls for a concerted effort among stakeholders to harness the full potential of PPPs in revolutionizing space applications.