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DESIGNING NEW PUBLIC-PRIVATE PARTNERSHIP MODELS FOR FUTURE COMMERCIAL LUNAR ACTIVITIES

Abstract

In this paper, we explore the new generation of Public-Private Partnership (PPP) models that could strengthen the economic rationale for future commercial lunar exploration activities. While the lunar and cislunar economies are expected to boom in the coming decades, potentially reaching market values of 142 Billion dollars by 2040, the specific nature of the multifarious activities they entail will likely require new co-funding mechanisms. Indeed, the magnitude of capital expenditures required by cislunar and lunar missions will push to the limits the necessity to value assets developed and acquired during the missions, encouraging companies to identify new ways to generate revenue. An example of such is the new way companies will likely commercialize data on how their instruments react to the lunar environment, or data on lunar soil. This, in turn, expands the potential for PPP models with new ways of valuing assets to the eves of governmental players who will find new rationales for co-investing in cislunar and lunar ventures alongside commercial players. This papers therefore starts with an initial review of the economics of PPPs before focusing on the different PPP setups that have shaped space activities until now. We then deep dive into the specificities of new cislunar and lunar activities' business models. This allows us to set the basis for our exploration of potential new PPP setups that governmental entities such as Space Agencies could endorse in the years to come in order to facilitate commercial ventures in cislunar and lunar environments. We finish with concrete recommendations to policy makers on how to facilitate the deployment of the new models identified.