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Space Economy - New models and economic approaches for private space ventures, with an emphasis on the needs of emerging space nations (3)

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REVIEW AND RECOMMENDATIONS ON REGIONAL COLLABORATION DEVELOPMENT TO BUILD THE ASEAN SPACE ECONOMY

Abstract

Space technologies are hugely contributing to the socio-economic development of the countries worldwide. In the future, more countries have to participate in the space programs for enhanced international cooperation for space activities. In the Asia-Pacific Space Generation Online Workshop 2020 conducted by the Space Generation Advisory Council, a working group was formed to analyze the past space program experiences in the Asia Pacific region and based on them, to draw recommendations for the space-newcomers and regional cooperation among the countries. This paper is inspired by the discussion outcomes of the working group and all authors are closely involved in the activities of the working group. The objective of the paper is to set a baseline for a potential framework on cooperative space-related activities among the Association of South-East Asian Nations (ASEAN) countries, focussing on the financial aspects of the individual member states and collectively. The paper starts with a summary of till-date governmental investments and future financial goals for the space-related activities in the ASEAN member countries. For ease of understanding, the countries are grouped under three categories based on their space economy as follows: small/non-existent space economy, medium space economy, and highly developed space economy. In the next section, the cooperative initiatives within the ASEAN member nations and other space agencies are detailed. Various costs and benefits involved in such collaborative activities are discussed to show their importance and impact. In the last section of the paper, recommendations for the potential areas of enhanced cooperation within the ASEAN member countries are discussed. Two case studies will be included as examples to study the socio-economic and non-economic benefits of enhanced private and public partnerships. In the first case, the financial framework of the European Space Agency (ESA) is analysed to highlight the economic advantages of having such a comprehensive space agency for the

ASEAN member countries. Secondly, different collaborative models present in the New Space businesses are discussed. With the growing dependence on space-based technologies and assets in today's world, enhanced collaborations are the key to push the frontiers of science and technology and promote economic growth in the ASEAN countries. This study can benefit scientific, institutional, political, industrial, and innovation-related communities. It is to be noted that the selection of ASEAN countries for this study serves as a first step towards addressing the vast Asia-Pacific region.