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CAPACITY BUILDING: COMPARING TWO CATEGORIES OF INTERNATIONAL
COLLABORATION

Abstract

Micro satellites capable of providing medium or low-resolution images are a preferred choice for several developing nations wanting to procure their first satellites with some form of technology transfer. Understandably, micro satellites within this class are not only able to provide useful images and a wider range of functionality but they also appear to be more representative of what is expected from national space agencies of these emerging space nations. Cubesats on the other hand, are a quick and cost effective means of building capacity because they are less complicated; subsystem goals are clearer and easier to achieve. Additionally, for technology-disadvantaged space emerging nations, cubesats introduces a more basic approach to technology transfer with higher returns from absorptivity standpoint. Surrey Satellite Technology Limited and Astrium are amongst the leading companies providing technology transfer in the micro satellite category and above for national space agencies of emerging nations. TuBerlin provides hands on training to space agencies using micro sized satellite category. Kyutech on the hand, uses cubesats for its capacity training, however, with focus on universities from space emerging nations. Space agencies are often more funded than universities and are more likely to procure microsatellites along with bespoke technology transfer programs to meet its demand. More so, micro satellites naturally allows for an increased number of trainees. Conversely, it is more financially convenient for Universities in emerging economies to opt for a less costly, less complicated cubesats with short development time as an alternative. This paper examines two categories of capacity building through international collaboration: between space agencies and universities of an emerging space nation and international partners from a developed economy with focus on interest protection, stakes between collaborating institutions and subsequent technology transfer validation for the recipient nation.