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Interdependency (15) Interdependency (1)

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UNDERSTANDING AND MANAGING INTERDEPENDENCY AND INDEPENDENCY IN EXPLORATION PROGRAMMES

Abstract

Robotic and human exploration missions are becoming more and more complex whilst the available funding at space agencies will remain constrained. Thus, partnerships will be required to a wide extent to implement exploration programmes that fulfil to agencies' objectives. The naturally created interdependency between two or multiple partners has a direct or indirect influence on the programmatic planning and strategic prioritisation at space agencies and other involved partners. Levels affected reach from element and system level down to research and technology development. At the same time space agencies will continue to pursue self-defined priorities, e.g. through national missions and in technology development, which maintain an – important – degree of independence for them. Against this background space agencies and other involved partners should take steps to actively define and manage the factors affecting interdependency at the architecture, mission, system and technology level, in order to enable successful exploration programs in cooperation.

This paper analyses interdependency on different levels of national and international space exploration activities, and develops recommendations for beneficial implementation in mutual interest of partners and at the same time maintaining space agencies' independent priorities.