

49th IAA SYMPOSIUM ON SAFETY, QUALITY AND KNOWLEDGE MANAGEMENT IN SPACE  
ACTIVITIES (D5)

## Knowledge management and collaboration in space activities (2)

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## NASA'S PUBLIC-PRIVATE PARTNERSHIP ROUNDTABLE: OVERVIEW AND OBSERVATIONS

**Abstract**

Since its inception, NASA has collaborated with U.S. industry to develop and design space systems bound for increasingly challenging destinations in the solar system. Over time, the nature of these partnerships has evolved to meet NASA's progressive mission objectives and by extension, new types of business models. Traditional collaborations involved cost-plus contracts – where the contractor is paid for all of its costs, plus additional payment to allow for a profit – for satellites, launch vehicles, the space shuttle, and even today's newest spacecraft, the Space Launch System and the Orion Crewed Spacecraft. While this type of agreement is useful for large, government owned systems, a new model has emerged—one that requires industry to commit their own resources and retain ownership of the systems they build, allowing them to sell services to NASA and other customers. This new approach has proven successful for International Space Station cargo resupply services, and NASA expects the upcoming commercial crew transportation services to realize the same success. The U.S. industry has responded enthusiastically to these opportunities, and just recently has led to successful awards for lunar landers and in-space habitation concepts. The myriad public-private partnerships within the agency creates the imperative to connect the individuals and organizations that have spearheaded these endeavours to ensure that lessons learned are institutionalized and that NASA continues valuable industry partnerships.

As NASA has expanded, it has become increasingly difficult to facilitate discussions across the agency with the individuals who are managing partnership activities. To begin fostering greater networks, the Human Exploration and Operations Mission Directorate at NASA Headquarters held an inaugural event in the Spring of 2016 to establish and sustain connections across the agency between those who have executed partnership agreements with private industry. The objective was to facilitate discussion on lessons learned, challenges, and how to eliminate obstacles to successful partnerships opportunities. This paper will document the structure of the event and report on observations and lessons learned for future activities. It will also summarize the findings presented from various participants across NASA and how they plan to implement new partnership concepts within their organizations. Based on the outcomes, a proposal for next year's forward work will be recommended including how a future event should be structured.