

## **Executive Summary**

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### **Presentation Title**

Exploring the Moon with Samples.  
Scientific and Exploration Importance of Sample Return  
and Buying Down Risk and Cost of Sample Return Missions.

### **Key Ideas**

- (1) Overview of Session
- (2) Sample return is an exceedingly important component of lunar exploration.
- (3) Samples provide a unique data set that is critical for understanding the Moon.
- (4) Information about large scale planetary-solar system processes can be extracted from the robotic return of small sample volumes.
- (5) Sample science and sample return has a symbiotic relationship with orbital science, surface science, and resource utilization.
- (6) Samples placed within a planetary and geologic context by orbital and human observations is extremely valuable.
- (7) Sample return fits within a variety of architectures for human exploration of the Moon.
- (8) Risk and cost of sample return missions are perceived as being more expensive than other planetary missions. How can we buy down risk and cost?