

17th IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND
DEVELOPMENT (D3)

Space Technology and System Management Practices and Tools (4)

Author: Mr. Joseph Mousel
Luxembourg Space Agency, Luxembourg

Mr. Bob Lamboray
Luxembourg Ministry of the Economy, Luxembourg

Dr. Mathias Link
Luxembourg Ministry of the Economy, Luxembourg

Mr. Cedric Letsch
Luxembourg Space Agency, Luxembourg

Mr. Gary Martin
Luxembourg Space Agency, United States

MAJOR RESULTS OF THE FIRST MINING SPACE SUMMIT

Abstract

On 28th of September 2018, the Luxembourg Space Agency (LSA) organized the first Mining Space Summit in Luxembourg City. More than 140 participants from over 17 countries working in different industries (e.g. oil and gas, terrestrial mining, space, finance, and government) joined this one-day workshop. This paper highlights a ‘best practice’ of how the forward leaning space resources community can learn from the existing successful terrestrial mining community.

The workshop consisted of a plenary session in the morning of eight keynote presentations designed to provide attendees with background information about space resources utilization business models, technological approaches, and operations. In the afternoon, there were six topic-specific parallel breakout sessions for participants to engage directly on how the space and Earth mining communities can collaborate or learn from one another. A concluding plenary in the afternoon and a closing reception in the evening rounded out the event.

The breakouts focused on two broad themes: (1) business models and (2) critical technologies and operations. The three business oriented sessions and three technical oriented sessions are listed below with a short summary of their primary discussion topics: Market and Dynamics; understanding space resources supply and demand dynamics by considering their use cases, prices, associated costs, and other factors. Investment and Financial Planning; financing space mining projects and terrestrial ventures, and understanding potential financing models for projects in innovative and high-risk fields. Role of Government and Regulators; enabling the growth of a nascent industry through public policy and regulatory actions. Prospecting – Proving Value; finding, identifying and analyzing resources to prove their value and justify mining operations. Extraction – Creating Value; establishing and operating mines in extreme and remote conditions and generating value from a mine in space in a sustainable way. Enablers – Optimizing Value; increasing mine efficiency by leveraging critical support services, technologies and processes, such as logistics, communication services, and power distribution.

This summary paper provides the major results of those discussions, which will set the foundation for future work. The 2018 summit was only the beginning of a long-term process to identify areas of collaboration between the space and terrestrial mining industrial sectors. Future summits will build on these results.