

BUSINESS INNOVATION SYMPOSIUM (E6)

New space industry segments, firms, actor groups, and multiple programs: innovation, entrepreneurship & investment at the mesoscopic level of analysis (2)

Author: Dr. Michael Simpson
Secure World Foundation, United States

Mr. Ian Christensen
Secure World Foundation, United States
Ms. Krystal Wilson
United States

BROADENING BENEFIT AS A PATHWAY TO THE WIDELY-ACCEPTED DEVELOPMENT OF
EXTRA-TERRESTRIAL RESOURCES

Abstract

Innovative applications and business plans emerging from the commercial space sector will be the subject of intense scrutiny by governments eager not to be left behind in the development of new economic activity in space. The breadth of participation in the benefits of such space activity is likely to play a significant role in the range of political support it enjoys. This paper seeks to explore this idea by looking at the specific challenges facing space mining. Considerable attention has been focused on the non-appropriation (Article 2) and exploration and use clauses (Article 3) of the Outer Space Treaty (OST) and the common heritage language of the Moon Agreement (Article 11.1) when discussing this topic. Nonetheless, there are indications that the OST's benefit clause (Article 1) may emerge as a key to achieving broad international support for commercial mining operations beyond Earth. The multilateral utility of the benefit concept is evident in frequent references to it in such contexts as UNCOPUOS, GEO, The Hague Space Resources Governance Working Group, and numerous international space conferences. Because states will ultimately evaluate "benefit" in terms of its impact on their citizens and their wellbeing and not on the history of its use in legal proceedings, the study of the concept's potential to create a receptive and permissive environment for commercial resource development off Earth is inherently political and economic. Fortunately, there is a rich array of terrestrial experience bridging the micro- and macroscopic perspectives that can help provide insight into how mining interests have been reconciled with those of the communities in which they have operated. There are also insights to be drawn from unsuccessful examples. This paper will seek to highlight best practices from the terrestrial experience that can illuminate the challenge of broadening the benefit base for space mining. Additionally, it will offer an initial assessment of the applicability of the terrestrial experience to the special context of extracting resources from objects in space. The paper will also draw on recent work of the Secure World Foundation to improve the understanding of value creation through space activity. This aspect will argue that the ability to add and communicate value can increase the range of potential benefits that could flow from the development of space resources. The paper will also leverage prior analysis that the authors have published examining the links between social benefit, space activity, and corporate strategy.