## IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7) Interactive Presentations - IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (IP)

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## THE UNITED STATES' JOURNEY IN SPACE MINING: FIRST STEPS IN REGULATORY IMPLEMENTATION

## Abstract

Although the mood toward commercial space mining is changing – as demonstrated by a January 2019 Space Review article that states "The asteroid mining bubble has burst" – space mining technology and initiatives are still moving forward, and so the legal and regulatory discussion remains valid and valuable. Will we really be conducting large-scale "recovery in situ in outer space of abiotic resources" within the coming decades? Probably not, but there currently exists the momentum to develop effective regulation for space mining before its activities commence, and the question of the initial implementation of any regulatory framework represents a special level of priority. This presentation will therefore focus on two key points:

Firstly, it will review and compare the recent concrete initiatives in the US which would include space mining activity in their purview, in particular the Commercial Space Launch Competitiveness Act (CSLCA), the American Space Renaissance Act (ASRA), and the American Space Commerce Free Enterprise Act (ASCFEA). As a brief summary of these, the former establishes the right of ownership of space resources for American citizens, but does not establish a regulatory framework and so leaves many questions unanswered. A US Office of Science and Technology Policy (OSTP) letter of April 2016 proposes, though, a "Mission Authorization" framework for future commercial space activities (excluding existing activities), which likewise forms the basis of the framework proposed in the ASRA, which itself reflects contemporary regulatory practice. Lastly, the ASCFEA aims to achieve a reduced regulatory burden on the commercial sector as compared with the latter.

Secondly: the presentation will proceed to discuss the initial steps in implementing any commercial space regulatory regime including space mining in its purview, with a focus on the particulars of the regimes mentioned previously and the relevant state institutions that would be responsible. The applicable international space law will likewise be considered and evaluated. I will lastly raise the associated difficulties and ongoing challenges that will arise as both technology and commercial practice may evolve over time. Overall, the presentation will aim to identify what space mining regulation would really look like in its initial phase and how challenging the different proposed regimes may prove for both the commercial actors to respect and for the regulatory authorities to implement.