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Space Resources (2) (2)

Author: Prof. Katarzyna Malinowska
Kozminski University, Poland

Mr. Bartosz Malinowski
Polish Academy of Sciences - Space Research Centre, Poland
Prof. Małgorzata Polkowska
Poland

WHAT'S NEXT FOR THE REGULATION OF UTILISING SPACE RESOURCES? TERRESTRIAL MINING VERSUS SPACE MINING – THE PERSPECTIVE OF THE TERRESTRIAL EXTRACTIVE INDUSTRY

Abstract

The utilisation of resources existing in outer space is the key enabler, or at least a significant facilitator, of any future use of deep space by humans, as well as of greater prosperity here on Earth. The use of natural resources present in outer space is necessary due to the difficulty and cost of lifting materials from Earth's gravity, as well as transporting them anywhere beyond low Earth orbit. On the other hand, rare elements present in asteroids and smaller objects, if economically extracted and brought down to Earth, could decrease the cost of manufacturing numerous goods. These facts are the starting point of the considerations conducted in the paper with respect to the prospects for the future regulation of utilising space resources. As we are acting in a legal vacuum, facing a kind of greenfield of legal regulations, the legal approach should be multi-perspective. Most of the recent considerations on the subject have focused on the validity of space mining activity from the perspective of public international law. The authors do not question the importance thereof, however, the more specific aspects of this type of activity should also not be lost. Thus the existing legal regime included in space treaties, as well as the outcomes of the activities of The Hague Space Resources Governance Working Group, including the recently published "Building Blocks for the Development of an International Framework on Space Resource Activities", should be just a starting point for the paper. At first, it seems the basic principles and postulates developed in the 'Building blocks' should be re-established at both the international and the national level through a specific regulation adapted to the nature of space mining activity. Just like earth-based mining, space mining will presumably be an exploitative, dangerous and environmentally damaging activity. Even with strict policies and regulations in place, mining activities will still release dangerous pollution into the surroundings. The technology feasibility studies conducted in this respect have already attempted a comparison of traditional earth mining and asteroid mining, finding many similarities. Thus, the authors' intention is to attempt to compare the earth-based mining legal regulations, possibly drawing some conclusions as to the specific aspects of space mining, such as the liability regime at a private or national level, licensing, the type of property rights, environmental issues, the risk-sharing regime, compulsory insurance, as well as supervision and control. The issue of the business models, including the public-private partnership, should also be considered. The long tradition of mining laws in the countries with established extractive industries may provide interesting regulatory directions for attempts to draft extra-terrestrial mining legislation.