Luxembourg as a Leader in Space Resource Activities

- The grand Duchy of Luxembourg has a long history with Space Activities beginning with the establishment of SES S.A. as a Luxembourgish company in 1985.
- Recently, Luxembourg has reasserted itself as a space faring nation with a new initiative to invest in emerging and innovative space technologies through the establishment of a Space Fund and the SpaceResources.lu initiative.
- Additionally, Luxembourg has sought to establish a regulatory environment that is favorable to companies interested in space resource mining, passing Loi du 20 juillet 2017 sur l’exploration et l’utilisation des ressources de l’espace that allows a Luxembourg licensed company to gain ownership over space resources that that entity extracts.
- To date companies such as iSpace, Planetary Resources, and Deep Space Industries have established offices in the Grand Duchy.
- The SES Chair in Space Law at the University of Luxembourg supports this effort an established research expertise in the legal issues associated with space resource extraction.

Article II and Property Rights
P.J. Blount, Postdoctoral Researcher

- This research seeks to historically situate the non-appropriation principle from Article II of the Outer Space Treaty in the context of emerging international law system post World War II.
- It argues that the non-appropriation principle is primarily concerned with territory and purposely leaves the question of property open to interpretation by domestic authorities.
- This focus on territory rather than property tracks is consistent with international law, which does not address issues of property. This is because the international law system, in order to be global and effective, had to accommodate both socialist and capitalist economies whose views of property were very different.
- As a result questions of ownership are to be resolved under domestic rules and regulations rather than via treaty mechanisms, but states should avoid a ‘race to the bottom’ mentality in authorizing these activities. States should encourage the development of these activities, while ensuring that commercial activities do not compromise safety, security, and sustainability.

Partnership: Hague Space Resources Working Group

- The University of Luxembourg (the SES Chair) has intensified its participation in the work of The Hague Space Resources Governance Working Group in 2018.
- The University became partner in the Consortium of The Hague Group, and participates in the elaboration of the Building Blocks for the Development of an International Framework on Space Resources Activities.
- The aim of this document is to lay the groundwork for international discussion on a creation of an enabling environment for space resources activities, including the priority rights to operators, the register of these rights, the international repository, and the rules on the environmental protection.
- In 2018, the University of Luxembourg will host a meeting of the Hague Group.

Interaction of National Laws and International Law
Prof. Mahulena Hofmann, SES Chair in Space & Satellite Law

- This research focuses on identifying how national rules on space resource activities interface with the international regime of space law.
- It investigates both Luxembourgish and US law on space resource activities, and thoroughly analyses these laws in the context of the international regime.
- Through this comparative approach, this research identifies the core issues surrounding emerging space resource legislation.
- It argues that these statutes provide a valid interpretation of the obligations found in international law under both the Outer Space Treaty and the Moon Agreement.

Environmental Concerns of Space Resource Extraction
Federico Bergamasco, Ph.D. Candidate

- This research is focused on how space resource activities should be regulated to ensure that environmental protection of space.
- Space activities raise numerous environmental concerns, including the destruction of sustainability of space and scientific concern of the contamination of celestial bodies.
- Research investigates these questions in light of two competing approaches, anthropocentric and ecocentric, to the international regime.
- Concludes that Article IX of the Outer Space Treaty is the most effective legal framework for protecting outer space since it allows for an anthropocentric approach that protects both the space environment and human interests in the use and exploration of outer space.

List of Relevant Publication


Contact

- Prof. Mahulena Hofmann – mahulena.hofmann@uni.lu
- Dr. P.J. Blount – percy.blount@uni.lu
- Federico Bergamasco – federico.bergamasco@uni.lu
- Sandra Cabrera Alvarado – sandra.cabrera@uni.lu