## SPACE SUSTAINABILITY GOVERNANCE AND THE SPACE DEBRIS CASE: A STUDY OF EPISTEMIC COMMUNITIES' INFLUENCES OVER INTERNATIONAL

## POLICY COORDINATION

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## **SUMMARY**

This study focusses on the issue of space debris as the major threat to the continued use of outer space simplified as "space sustainability" and looks into the impact of debris policy efforts over space sustainability progress.

As a debris policy evaluation, it provides a historical look at debris governance since the first efforts observed in the 1970s. Using an innovative international relations' framework, this research draws upon Peter Haas' seminal work on epistemic communities, and upon Thomas Weiss and Ramesh Thakur's work on global governance to assess debris governance. This study evaluates space debris as a case of global governance and of space sustainability progress. It provides a closer look into several epistemic communities' involvements in debris governance and applies "global governance gaps" as indicators of space sustainability progress evaluated according to knowledge, normative, policy, institutional and compliance gaps, forming the basis of a global governance regime. The epistemic communities explored are the Debris Mitigation, the Long-Term Sustainability, and the Arms Control groups. The framework also considers the dynamics of these communities' involvements in shaping the debris global governance rules and system. Following a background chapter on the main stakeholders in the space debris governance system, the "emerging" phase analyses early debris instruments and the "consolidating" phase explores comprehensive debris instruments and additional supporting initiatives as well as the growing role of private entities in the governance process especially under the NGO-level.

The research findings confirm a pluri-epistemic involvement of these three main epistemic groups and their significant role as enablers of global space debris governance emergence and consolidation. The study clarifies epistemic communities' dynamics and provides a detailed assessment of the global governance progress achieved. Specifically, the study

highlights the essential role played by the Debris Mitigation group as a catalyzer of the emergence and evolution of a debris regime based upon international and national debris mitigation instruments. The study also reflects on how this Debris Mitigation group benefitted from an earlier Arms Control group's influence on basic space governance rules, and how in turn the Debris Mitigation group enabled the emergence of another group, namely the Long-Term Sustainability group, further consolidating the regime with additional debris-related instruments. The thesis also confirms that cooperation was possible even when national security interests are at stake and that the increase of the number of actors provided an opportunity for debris global governance progress.