

IAF SYMPOSIUM ON SECURITY, STABILITY AND SUSTAINABILITY OF SPACE ACTIVITIES  
(E9)Interactive Presentations - IAF SYMPOSIUM ON SECURITY, STABILITY AND SUSTAINABILITY  
OF SPACE ACTIVITIES (IP)

Author: Prof. Katarzyna Malinowska  
European Space Foundation, Poland

Mr. Michal Szwejowski  
Kozminski University, Poland

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

## LIABILITY INSURANCE AS A PREVENTIVE TOOL IN THE DEBRIS MITIGATION STRATEGY

**Abstract**

A growing number of experts, scientists, politicians and regulators are looking for an effective solution to the problem of space debris. However, once a technical solution is available, societies may not be ready to implement it due to ineffective political or legal mechanisms. Based on the critical importance of space debris mitigation for sustainable development, the authors intend to explore the interplay between liability rules, safety regulations and insurance and their impact on the development of an effective mechanism to prevent and mitigate the risks associated with space debris.

The first step is to assess the effectiveness of space liability regimes at the international and national levels. There is no doubt that the space liability regime aims to prevent safety risks posed by the sector. However, it may not be efficient on its own because of the nature of debris, i.e. the problem of proof or time lag, and also because it can easily become obsolete if frozen in statutes, as well as because of economic solvency problems at the national level. In this scenario, as in the case of environmental risks, safety regulations imposed by the state may replace liability rules. However, the optimal interdependence between liability rules and safety rules to ensure prevention and mitigation effects is difficult to achieve, e.g. with regard to proof of fault ("compliance defence"). Can these concerns be addressed by adding liability insurance to safety and liability rules? Practice shows that once liability insurance is in place, it begins to act as a de facto regulator and supervisor of risk prevention behaviour and can even replace liability rules and safety regulations, especially where the sector is new and regulators are not sufficiently experienced. This has significant public policy benefits as insurers, acting in their own and society's interest, become not only enforcers of regulations but sometimes de facto regulators. On the other hand, insurers can benefit from the safety rules that the regulator imposes.

The aim of this paper is to examine the interdependence of liability rules, safety regulations and insurance to ensure optimal prevention and mitigation effects in space debris management. Based on this, the authors will present the idea of 'building blocks' for space liability insurance that could and should be universal as a response to the supranational problem of space debris.