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Assuring a Safe, Secure and Sustainable Environment for Space Activities (4)

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THE EUROPEAN CONTRIBUTION TO ASSURE A SAFE, SECURE AND SUSTAINABLE
ENVIRONMENT FOR SPACE ACTIVITIES: THE POLICY AND THE LEGAL PROCESS THAT
BROUGHT TO THE EU SST SUPPORT FRAMEWORK AND ITS FUTURE PERSPECTIVES.

Abstract

Today, space industry worldwide is living a great exciting period. Thanks to the development of space technology, production is shifting to small and low cost satellites, new business opportunities are rising up, and space appears accessible to everyone. Even if this can potentially create thousands of social, commercial and technological benefits, it has multiplied the space debris issue.

In this context, appropriate measures for assuring a safe, secure and sustainable environment for space activities are widely being discussed in multilateral fora. The world space actors are searching for solutions to mitigate and control debris located on geostationary, medium and low earth orbits, in order to guarantee a sustainable perspective to the space technology development and its exploitation.

The first step that European Countries made in this direction, in 2008, was the creation of the Space Situational Awareness (SSA) programme in the framework of the European Space Agency (ESA) programmes. The ESA SSA objective was to support the European independent utilization of, and access to, space for research or services, through the provision of timely and quality data and information regarding the space environment, and particularly regarding hazards to infrastructure in orbit and on the ground.

The aim of this paper is to show the process that brought to the Decision No 541/2014/EU of the European Parliament and of the Council of 16 April 2014 establishing a Framework for Space Surveillance and Tracking Support, whose objectives are: (i) to contribute to ensuring the long-term availability of European and national space infrastructure, facilities and services which are essential for the safety and security of the economies, societies and citizens in Europe; (ii) assessing and reducing the risks to in-orbit operations of European spacecraft; (iii) reducing the risks relating to the launch of European spacecraft; (iv) surveying uncontrolled re-entries of spacecraft or space debris into the Earth's atmosphere; (v) seeking to prevent the proliferation of space debris.

In this context, the authors analyse the policy issues and the legal framework, providing also some considerations for the future perspectives linked to the establishment of a proper EU flagship programme, with its own infrastructures and funding mechanisms.

This European initiative is also relevant to the UN-COPUOS activities and to the supported concept of the long-term sustainability of space activities. Therefore, purpose of the authors is also to express considerations about the straight of the SST's principles to be adopted in the discussion process of UNISPACE50+.