Paper ID: 77899
oral

IAF BUSINESSES AND INNOVATION SYMPOSIUM (E6)
Strategic Risk Management for Successful Space & Defence Programmes (4)

Author: Dr. S.W. Chiu
University of Exeter, United Kingdom

Dr. S.W. Chiu
Viterbi School of Engineering, USC, United States

SPACE-GOV: MITIGATING COMPOUNDED RISKS IN TIMES OF GEOPOLITICAL FLUX – A CASE STUDY ON EXOMARS & VIRGIN ORBIT

Abstract

SPACE-Gov is an inter-sectoral foresight project aimed at developing an expert network on space governance to mitigate risk, anticipate changes, and facilitate the long-term sustainable growth of the space sector amidst mounting institutional and political uncertainty.

Concluding from a series of foresight workshops conducted with contributions from major space agencies (UK,Europe) and international policy stakeholders, this paper reports on preliminary findings of the SPACE-GOV project. It will draw specific reference to the case study of the postponement of the launch of ExoMars - a major international Mars rover project severely delayed due to the war in Ukraine.

Analyzing input collected through the project, this paper will identify potential risk mitigation measures in managing mounting geopolitical uncertainty. The paper seeks to 1) identify common future challenges that inter-sectoral engagement and multilevel collaboration would need to collectively overcome; and 2) propose next steps to advance discussions for a sustainable, responsible, and adaptive space future that can provide continuity in times of major socio-economic and geopolitical disruptions.

Through analyzing findings from scenario planning exercises, the paper will synthesize concrete risk mitigation proposals put forward by technical experts and policy stakeholders in response to the following areas of challenges :

1) At the international level: Challenges associated with common pool of resources (/resources sharing) problems, mitigating risks posed by competitions for orbits/orbital slots, interference of radio frequency, and the deterioriation of international dispute settlement mechanisms.

2) At the national level: Identify and analyze measures that could help mitigate severe disruptions to the space sector posed by geopolitical tensions, with a particular focus on examining the prospect of establishing interoperability in averting, for example, the delay of the launch of major scientific project such as ExoMars as a result of geopolitical disturbance.