

IAF BUSINESSES AND INNOVATION SYMPOSIUM (E6)  
Interactive Presentations - IAF BUSINESS INNOVATION SYMPOSIUM (IP)

Author: Ms. Lourdes Priyadharshini S  
India

STRATEGIC RISK MANAGEMENT AND SUSTAINABLE DEVELOPMENT IN THE RAPIDLY  
GROWING SPACE ECONOMY

**Abstract**

Managing the risks associated with the rapid growth of the space economy is crucial in ensuring its sustainable development and avoiding a potential space hype bubble. This abstract outlines the risk management practices to be implemented and explores critical aspects related to geopolitical and socio-economic changes affecting our risk management practices, the consequences of crises, preparedness for the unpredictable, and the requisite organizational capacity in the space economy.

Risk Management practices like conducting a comprehensive risk assessment which includes technical, operational, and financial risks, ensuring regulatory compliance, diversifying investments by analyzing markets, addressing technology and innovation risks through research and partnerships, and ensuring supply chain resilience. Additionally, Financial planning which involves budget contingencies, clear goals, and regular reviews, and enhance public relations. Collectively implementing these practices enhances organizational resilience in the dynamic space industry. Regular monitoring, adaptability, and proactive risk management are key to long-term success.

Geopolitical and socio-economic crises, such as pandemics, economic recessions, and natural disasters, can have substantial consequences on risk predictions within the space economy. These crises disrupt supply chains, affect market demand, and introduce regulatory changes. Organizations need to diversify collaboration efforts, anticipate potential changes in diplomatic relations, and plans for alterations in international partnerships. Organizations should prioritize projects based on strategic importance so that economic recessions can lead to reduced budgets for space exploration and commercial activities. While it's difficult to predict the advancements in risk management practices which improves the ability to foresee a broader range of potential challenges. To better prepare for the "unpredictable" and seize opportunities in a rapidly changing world, organizations must foster agility, adaptability, and a proactive approach to innovation. This can be achieved by embracing emerging technologies, leveraging data analytics, and nurturing a culture of exploration. Investment in innovation and RD allows organizations to stay ahead of emerging trends and capitalize on opportunities that may arise unexpectedly.

To avoid human resource shortage in the future, organizations should invest in continuous education and training programs to develop talent, bridge skill gaps, and cultivate a diverse workforce capable of adapting to evolving challenges. Collaboration between academia, industry, and government is also essential for building the necessary capacity for scientific excellence in the space economy.

In conclusion, to thrive in the face of geopolitical and socio-economic uncertainties, organizations must effectively manage risks, capitalize on opportunities, and invest in human resources and capabilities.