

36th IAA SYMPOSIUM ON SPACE POLICY, REGULATIONS AND ECONOMICS (E3)
Cost and Procurement impacts on Space Programmes linked to high inflation and world-wide scarcity of
components and materials (6)

Author: Ms. Victoria Carter-Cortez
PricewaterhouseCoopers Advisory (PwC), France, v.stephcarter@gmail.com

INCREASED AUTONOMY AND INDEPENDENCE IN SPACE THROUGH ROBUST AND
RESILIENT SUPPLY CHAINS

Abstract

Disruption to space sector supply chains brought on by the Covid-19 crisis and the Russia-Ukraine war have forced us to re-assess the way we source subsystems and components for critical space infrastructure and to better understand the strengths and dependencies of current practises. The ties between space systems and sovereignty are unmistakable and the turbulent global dynamics observed in the last 3 years have led to an increasing trend towards regionalisation as means to concentrate supply chains locally to safeguard manufacturing from volatility due to contracting. This paper will outline the way space sector supply chains were operating pre-pandemic and identify the areas of greatest vulnerability. In addition, with a view to a more resilient and robust sector, where access to essential space systems and infrastructure are a priority, a mapping of critical components and materials will be provided. Some current examples of materials and components at risk include titanium, aluminium and microelectronic supply. Concrete recommendations to reduce risk and improve resilience in targeted ways will be considered as well as pinpointing particular space sector domains impacted by global supply chains. The analysis will aggregate an extensive literature review on the subject and provide a synthesis of the latest global developments on the space supply chain issues.