

Scaling the Swarm: DoD and Army Strategies to Enable Rapid and Sustained sUAS Procurement

Abstract

The rapid rise of small unmanned aircraft systems (sUAS) has transformed warfare, as seen in the Russia–Ukraine conflict where mass-produced, low-cost sUAS provided decisive effects. In harnessing this new technology, the U.S. faces critical gaps: limited domestic production capacity, fragile supply chains, and slow acquisition processes. This thesis analyzes how the Department of Defense can overcome these barriers to ensure affordable and adaptable sUAS are available at scale. Using a review of defense policy, contracting practices, and program management tools, the study identifies systemic obstacles including rigid processes, fragmented training standards, and cultural reliance on legacy systems. Analysis across Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities, and Policy highlights reforms needed to normalize drone use across the force. Findings show that innovative contracting mechanisms such as Other Transaction Authority and Commercial Solutions Openings, combined with dual-use and modular open system designs, can stimulate private investment, reduce costs, and strengthen domestic supply chains. The research recommends immediate bulk procurement of commercial drones to signal demand, paired with a long-term Program of Record supported by sustained appropriations. Ultimately, U.S. military success in future conflicts will depend not only on advanced technology but also on the ability to rapidly field vast numbers of sUAS.



Figure 1. Different Types of Drones

Methods

- Review of academic, governmental, agency (DOD), and private sector data, research, and policies
- Informed analysis and recommendations made from examination of the laws, policies derived from the laws, legal execution of those policies, and their success rates
- Evaluations of existing sUAS military landscapes and DOTMLP-F Change Recommendations

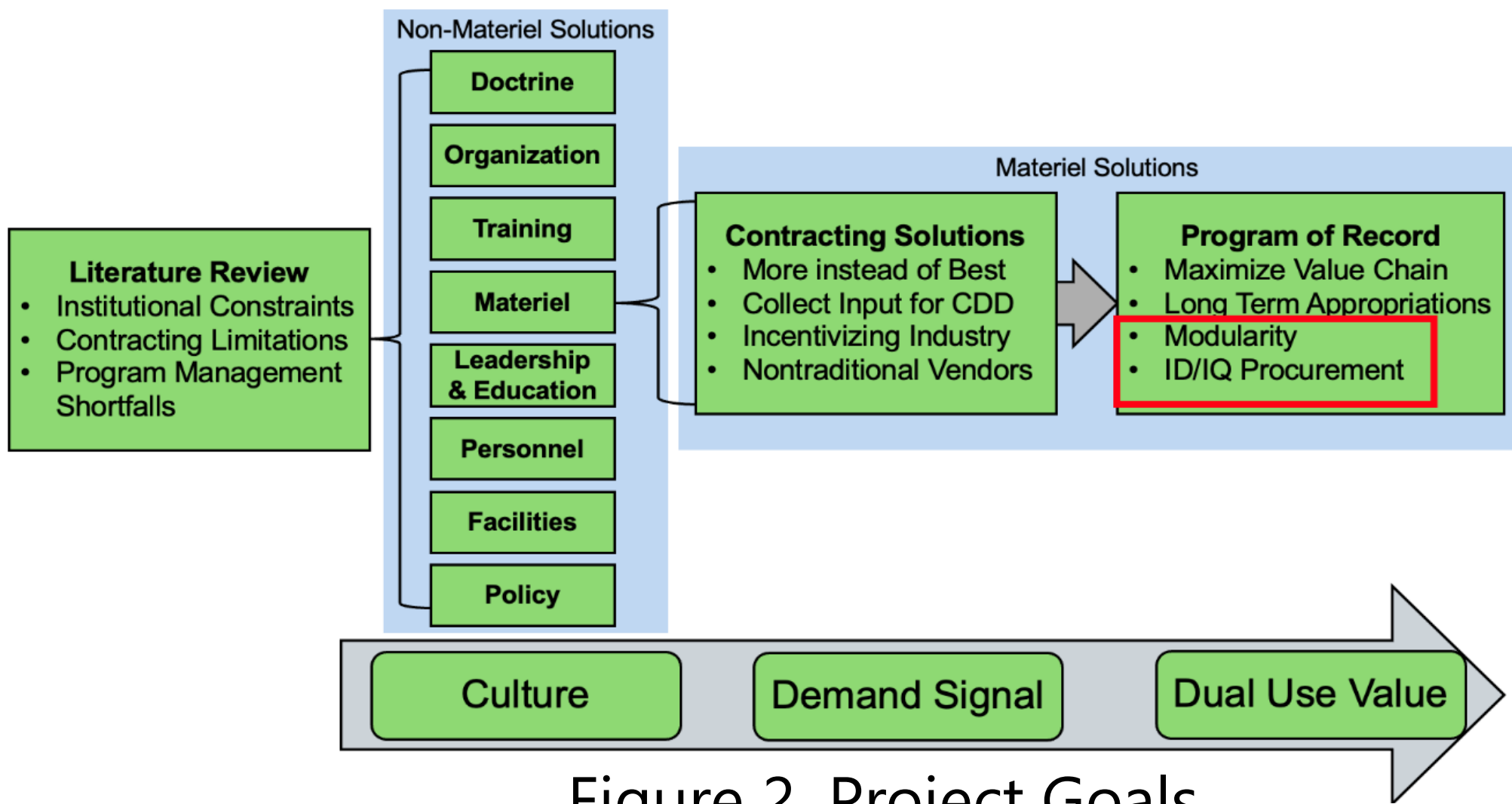


Figure 2. Project Goals

Results & Impact

- Simultaneously executing DOTMLP-F changes and bulk procurement via agile contracting to adjust service culture and present demand signals to industry.
- Building on DOTMLP-F changes and lessons learned from diversified contract procurement, a program of record is developed with UCA or MTA frameworks as capability gap roadmaps.
- Current administration appears to be employing a variety of recommended strategies to deliver capable sUAS to warfighters at scale; it remains to be seen how effective the administration’s actions will be.

Future Research

- Measure the effectiveness of policy changes through evaluating the impacts of Executive Orders 14265, 14267, 14307 and Secretary Hegseth’s directive on domestic sUAS production and procurement over time
- Evaluate the supply chain resilience of the domestic sUAS industrial base
- Determine if the DoD has presented a clear enough demand signal to encourage private industry development of domestic sUAS manufacturing through a survey of the sUAS market compared to the RAND (2025) report



Haydn Giannoni, MAJ, USA
Genevieve Prevete, MAJ, USA
Christopher Long, Capt, USAF
Advisors: Dr. Bob Mortlock
Tony Williams