DEPARTMENT OF WAR
CRITICAL TECHNOLOGY AREAS

The Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)) is spearheading a transformative era of technological innovation to ensure the United States military remains the most lethal and dominant fighting force in the world. The War Department is committed to delivering cutting-edge technologies that meet the urgent demands of today's warfighters. In an era of rapid advancements and adversarial competition, the Department has identified six Critical Technology Areas (CTAs) to focus its efforts. These CTAs represent the forefront of innovation, designed to deliver immediate, tangible results at the speed of relevance.

APPLIED SUPER INTELLIGENCE

ASI

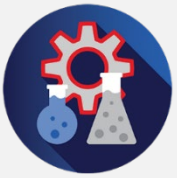
AI is the cornerstone of the DoW's strategy to achieve decision superiority. By embedding AI into command-and-control systems, the Department will enable intelligent workflows.



BIOMANUFACTURING

BIO

Harnessing living systems to produce critical materials at scale, BIO enhances operational resilience and reduces logistical vulnerabilities in unfavorable environments.



CONTESTED LOGISTICS TECHNOLOGIES

LOG

LOG reimagines military sustainment in disrupted or denied environments, ensuring warfighters have access to critical resources.



QUANTUM AND BATTLEFIELD INFORMATION DOMINANCE

Q-BID

Q-BID ensures operational effectiveness in contested electromagnetic environments by modernizing communication and sensing technologies



SCALED DIRECTED ENERGY

SCADE

SCADE focuses on scaling high-energy lasers and microwave technologies to provide low-cost, high-impact solutions against emerging threats.



SCALED HYPERSONICS

SHY

SHY will deliver Mach 5+ hypersonic weapons at scale, providing unmatched speed, precision, and survivability.

