

## DoD Releases the National Defense Science and Technology Strategy (NDSTS)

**Bottom Line:** On Tuesday, May 9, 2023, DoD [released](#) the NDSTS, expanding on what the 2022 National Defense Strategy (NDS) calls America’s “asymmetric advantages” in fourteen “critical technology areas.” The goal of the strategy is to “sharpen [America’s] competitive edge” by promoting innovation and protecting sensitive military technologies. Most importantly, the NDSTS advances the 2022 NDS by specifying how DoD can invest in technological innovation as a major element of American competitiveness and national security.

The NDSTS outlines three lines of effort:

1. Investing in information systems and establishing processes for improved analysis across all branches of the military (under a strong focus on “jointness”).
2. Moving “at speed and scale” to field capabilities.
3. Supporting research and development by investing in critical assets: talent, physical and digital infrastructure, and “more proactive” partnerships with a broader cross-section of industry partners.

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**Takeaways:** What will decide this strategy’s impact is how DoD conducts its “proactive engagements” with industry, including technologists; whether the Department is genuinely able to partner with a wider range of companies, particularly small businesses; and whether the services can truly adjust their investment and buying processes to match rapidly developing priorities.

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**Context:** The [NDSTS](#) builds on decades of efforts to streamline defense acquisitions, narrow the gap between experimentation and production, more rapidly field new capabilities to the warfighter, leverage off-the-shelf commercial technologies, and foster more fluid collaboration between the Pentagon and the private sector beyond the traditional prime-contractor model. Although initiatives like these are not novel, the two most recent National Defense Strategies incentivized them with their focus on China as a “strategic competitor” and “a pacing threat.” Challenges to such efforts include the information and communication gap between industry and DoD, rapid pace of technology development, and comparatively slower DoD budget cycle.

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### Key Points

- 1 The NDSTS builds principles around the previously-released [list](#) of fourteen critical technology areas for defense.
- 2 The NDSTS emphasizes the need to “strengthen collaboration with international allies and partners,” and specifically calls out the NATO Science and Technology

Organization (STO) and Defence Innovation Accelerator for the North Atlantic (DIANA); The Technical Cooperation Program (TTCP) alliance; and the Quadrilateral Security Dialogue (QSD).

- 3 The NDSTS states that DoD will “increase partnerships with both traditional and non-traditional members of the defense innovation ecosystem.” The strategy argues that non-traditional partnerships are needed to establish new pathways to advance joint solutions, pointing to existing venues and institutions like, “the Defense Innovation Unit (DIU), the U.S. Air Force’s AFWERX, the U.S. Navy’s NavalX, the U.S. Army’s Rapid Capabilities and Critical Technologies Office (RCCTO), U.S. Army’s XTECH, the U.S. Special Operations Command’s SOFWERX, and the U.S. Space Force’s SpaceWERX.”
- 4 The NDSTS notes that innovation in industrial processes is critical to manufacturing new technologies at the required speed and scale and highlights DoD’s Manufacturing Innovation Institutes (MIIs) and their network of public-private partnerships.
- 5 The NDSTS explicitly refers to the PRC as “a strategic competitor with access to cutting-edge research and development and the will to mount a sustained challenge to a stable and open international system.”

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**What comes next:** The implementation plan is due to Congress in 90 days, according to a [quote](#) from Dr. Nina Kollars, advisor to the undersecretary of defense for research and engineering.

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