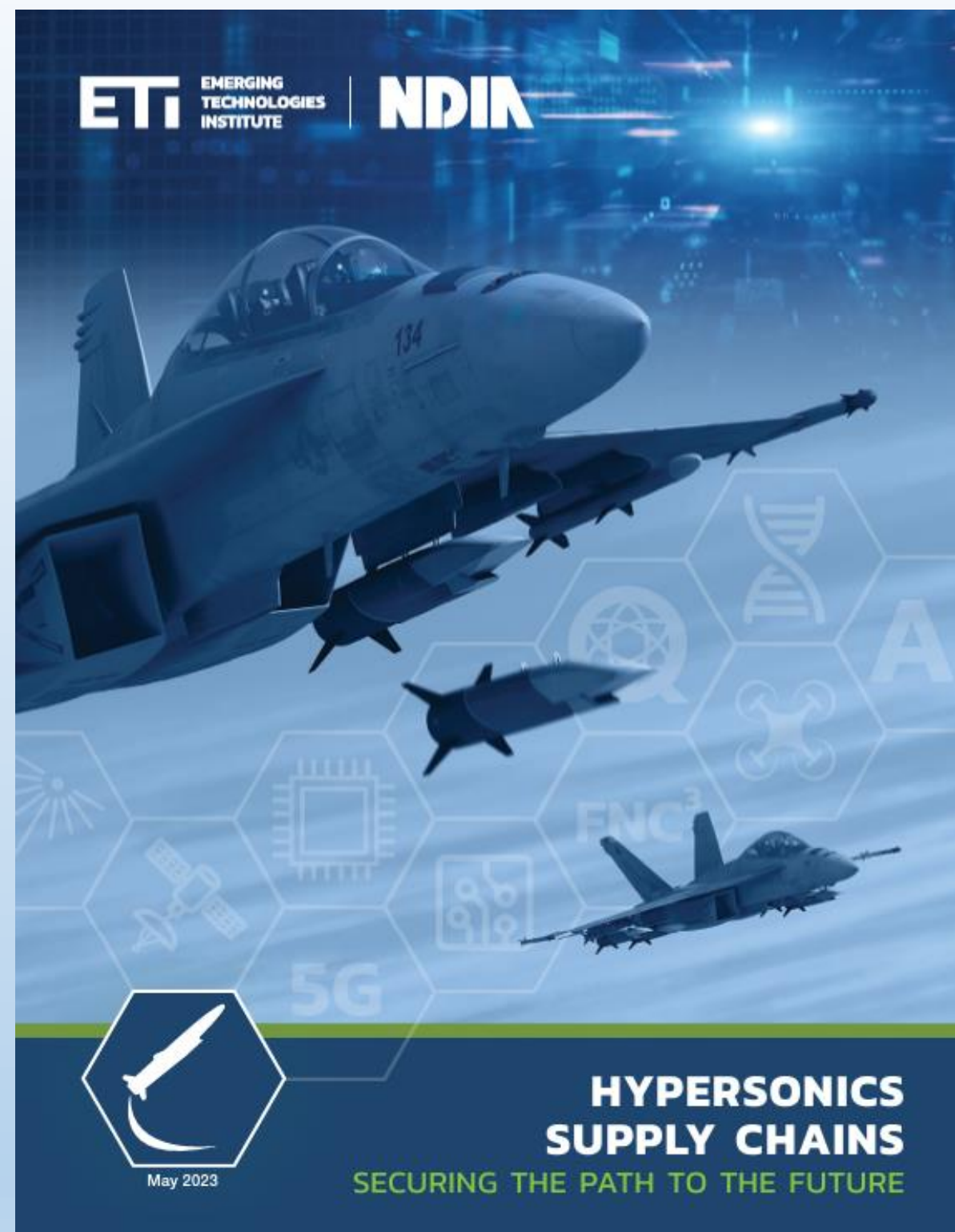




## Emerging Technologies Supply Chain Study

**Goals:** Assess the state of defense emerging technology supply chains and provide policy recommendations for their development, health, and resilience

**Scope:** Hypersonics (published in May 2023) and Directed Energy Weapons (currently underway)



## Hypersonics Report Methodology

- Partnered with University of Maryland Supply Chain Management Center
- Convened 8 working groups, comprised of 22 key stakeholders from industry, government, and academia
- Conducted interviews with representatives at all levels of the hypersonics supply chains
- Compiled key findings from working groups, interviews, UMD research, and internal research into final report
- Submitted report to a distinguished peer review committee and external reviewers prior to publication

## Final Assessment

**Current supply chains, including manufacturing base, supply of critical materials, testing infrastructure, and workforce are insufficient to affordably field hypersonic weapons at scale.**

## Key Recommendations

- DoD must provide a consistent demand signal to industry
- Further investment needed in high temperature materials such as carbon-carbon
- DoD should continue pursuing an air-breathing hypersonic vehicle system as part of its development plan to expedite manufacturing base growth and transfer critical knowledge from more senior hypersonic talent to new talent
- Academia should be leveraged for educating mid-level talent in hypersonic-adjacent fields to address workforce shortages
- OUSD A&S should ensure the acquisition workforce is adequately prepared for hypersonic procurement at scale through education and training
- U.S. government should look to Canada and Australia to diversify critical raw material supply and expand testing partnerships