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Mobilizing DOD Investment to Secure the Defense Industrial Base

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DoD Industrial Base Policy: Mission and Purpose

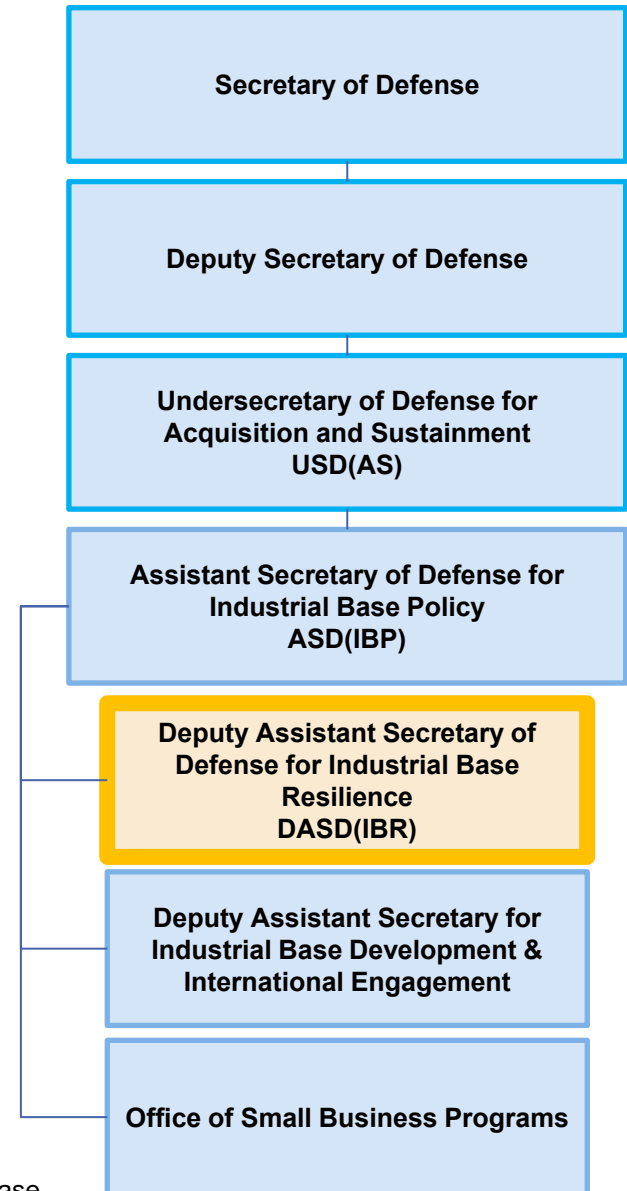


Assistant Secretary of Defense for Industrial Base Policy

Mission: Work with domestic and international partners to forge and sustain a robust, secure, and resilient industrial base enabling the warfighter, now and in the future.

Deputy Assistant Secretary of Defense for Industrial Base Resilience

Purpose: A resilient industrial base ensures our national security by enabling the warfighter and deterring our adversaries.





DOD Industrial Base Policy

ASD(IBP) is the Principal Advisor to USD(A&S) for:

- Developing DoD policies for the maintenance of the U.S. defense industrial base
- Executing small business programs and policy
- Conducting supply chain assessments
- Providing recommendations on budget matters for the defense industrial base
- Anticipating and closing gaps in manufacturing capabilities for defense systems
- Assessing impacts related to mergers, acquisitions, and divestitures
- Monitoring and assessing impact of foreign investments in the United States
- The office also plays a critical role in representing DoD interests on interagency committees regarding business and economic issues relevant to national security

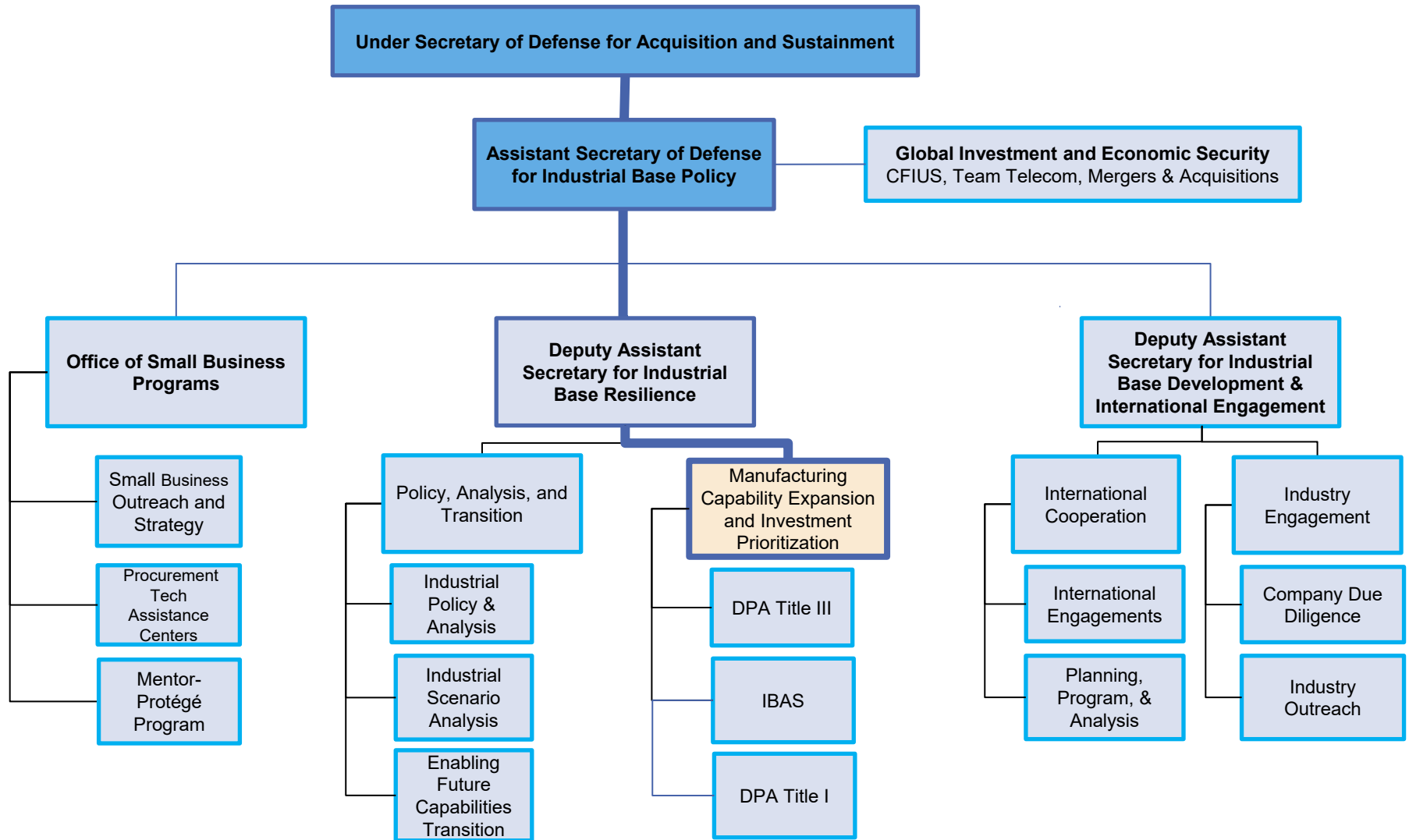
“[The] post-Cold War period saw the wider contraction of America’s overall production capacity across many industries ... Over three decades China became the global industrial powerhouse in many key areas – from shipbuilding to critical minerals to microelectronics ...

The National Defense Industrial Strategy (NDIS) – the first of its type to be produced by the DOD – provides a path that builds on recent progress while remedying remaining gaps and potential shortfalls. This NDIS recognizes that America’s economic security and national security are mutually reinforcing and, ultimately, the nation’s military strength depends in part on our overall economic strength.”

2023 National Defense Industrial Strategy



IBP Organization





Manufacturing Capability Expansion and Investment Prioritization (MCEIP)



- ❑ Incentivizes the creation, expansion and/or preservation of domestic industrial manufacturing capabilities and materials needed to meet national and homeland security requirements
- ❑ **Manufacturing Capability Expansion and Investment Prioritization (MCEIP) is comprised of two portfolios: Innovation Capability and Modernization (ICAM) and Defense Production Act Investments (DPAI)**
 - Together these portfolios provide **complementary** flexible authorities to incentivize and strengthen the Defense Industrial Base
- ❑ **The ICAM portfolio oversees the execution of the Industrial Base Analysis and Sustainment (IBAS) authorities**
 - IBAS authorities are leveraged to improve the readiness and competitiveness of the domestic industrial base by establishing high-priority domestic capabilities for new supply chains needed for national security and mitigating exposure to global supply chain risks
- ❑ **The DPAI portfolio oversees the execution of Defense Production Act (DPA) Title I and Title III authorities**
 - The purpose of DPA Title I is to ensure the timely availability of industrial resources to meet national defense and emergency preparedness requirements through the Defense Priorities and Allocations System (DPAS)
 - DPA Title III is an investment authority committed to ensuring resilient, robust domestic supply chains in order to reduce reliance on foreign manufacturing and correct domestic shortfalls in the defense industrial base



Executive Order 14017: America's Supply Chains








BACKGROUND

President Biden signed **E.O. 14017, America's Supply Chains**, in February 2021. This order directed multiple agencies, including the DoD, to review critical supply chains.

“The United States needs resilient, diverse, and secure supply chains to ensure our economic prosperity and national security ... Resilient American supply chains will revitalize and rebuild domestic manufacturing capacity, maintain America's competitive edge in research and development, and create well-paying jobs.”

IBP FOCUS AREAS

-  Strategic and Critical Materials
-  Kinetic Capabilities
-  Energy Storage and Batteries
-  Castings and Forgings (C&F)
-  Microelectronics

STRATEGIC ENABLERS

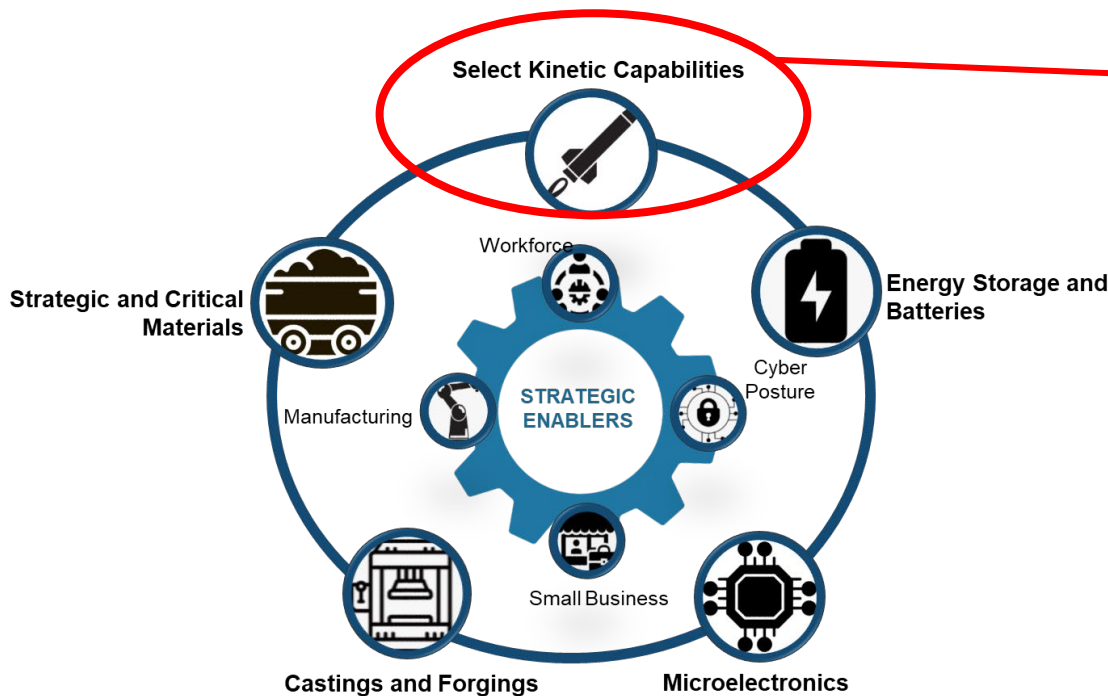
Cyber Posture – Small Business
Workforce – Manufacturing



Executive Order (E.O.) 14017, America's Supply Chains



- ❑ **Executive Order 14017** required a **whole-of-government effort** to assess risk, identify impacts, and propose recommendations in support of a healthy manufacturing and defense industrial base – a critical aspect of economic and national security.



Sector Challenges

- Sub-tier supply chain vulnerabilities
- Foreign and sole source dependency
- DoD Acquisition Processes
- Hypersonics Industrial Base Development

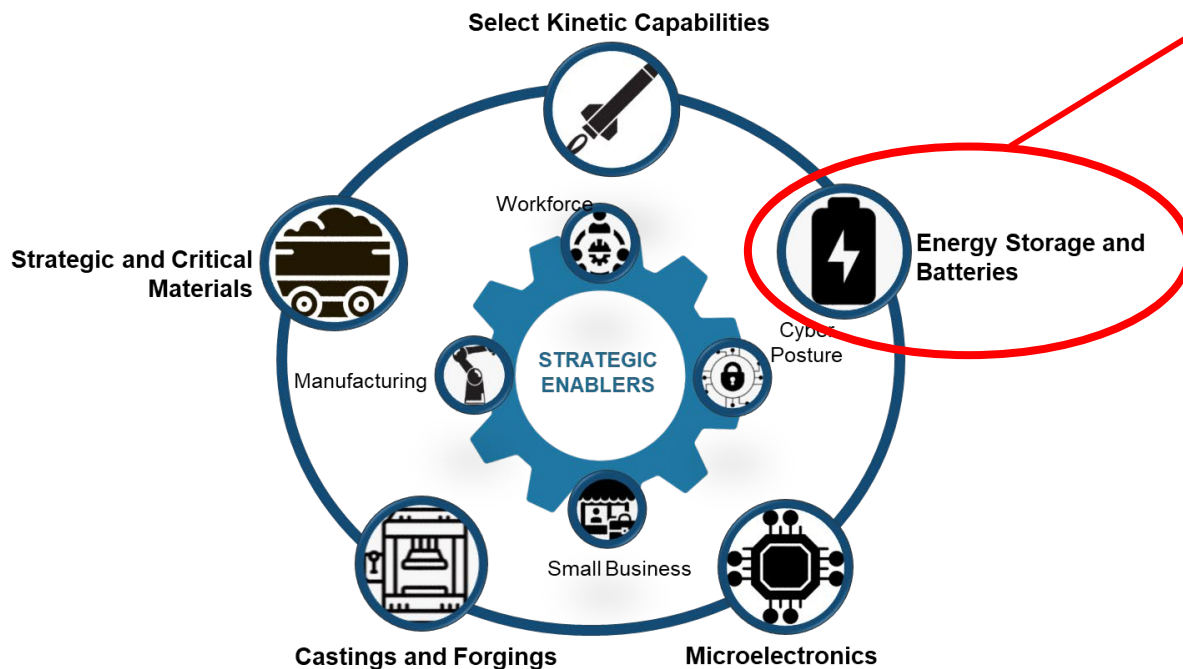
MCEIP Support: On-shore or secure US source for DoD critical chemicals for propulsion and lethality as well as improve and expand the industrial base to support the building, testing, and deployment of strategic and quick strike weapons.



Executive Order (E.O.) 14017, America's Supply Chains



- ❑ **Executive Order 14017** required a **whole-of-government effort** to assess risk, identify impacts, and propose recommendations in support of a healthy manufacturing and defense industrial base – a critical aspect of economic and national security.



Sector Challenges

- China's Dominance
- Custom Design Standards
- Acquisition Policy
- Supply Chain Data
- Infrastructure
- Organization and Structure within DOD

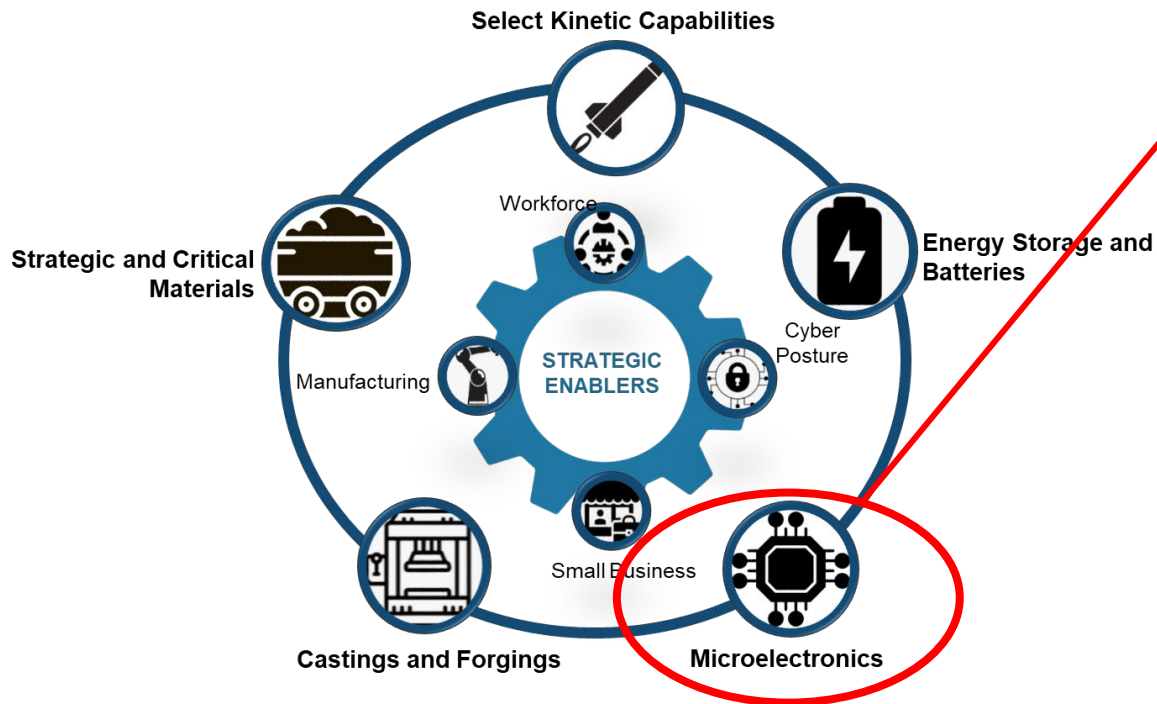
MCEIP Support: Establish domestic mine-to-battery production for EV's and weapon systems



Executive Order (E.O.) 14017, America's Supply Chains



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Sector Challenges

- Supply chain visibility
- Foreign dominance in commercial production of semiconductors
- Measurably secure microelectronics sources
- Non-market competitive practices
- Obsolescence
- DoD procurement practices

MCEIP Support: Maintain and increase the U.S. share of global semiconductor production to strengthen and secure DIB as well as develop and sustain domestic capabilities for radiation-hardened manufacturing and testing



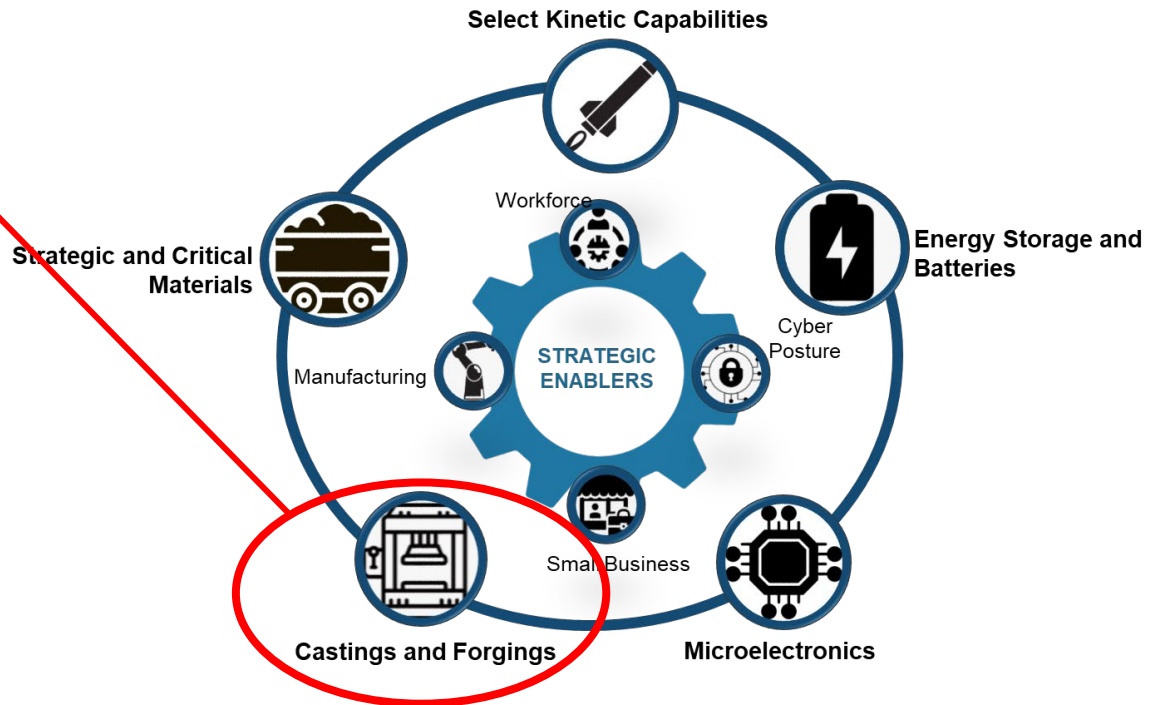
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Sector Challenges

- Capability and Capacity
- Acquisition and Program Protection Policy
- Technical Data Policy



MCEIP Support: Expansion of sole source supplier for aerospace grade metal and alloy products for rotorcraft



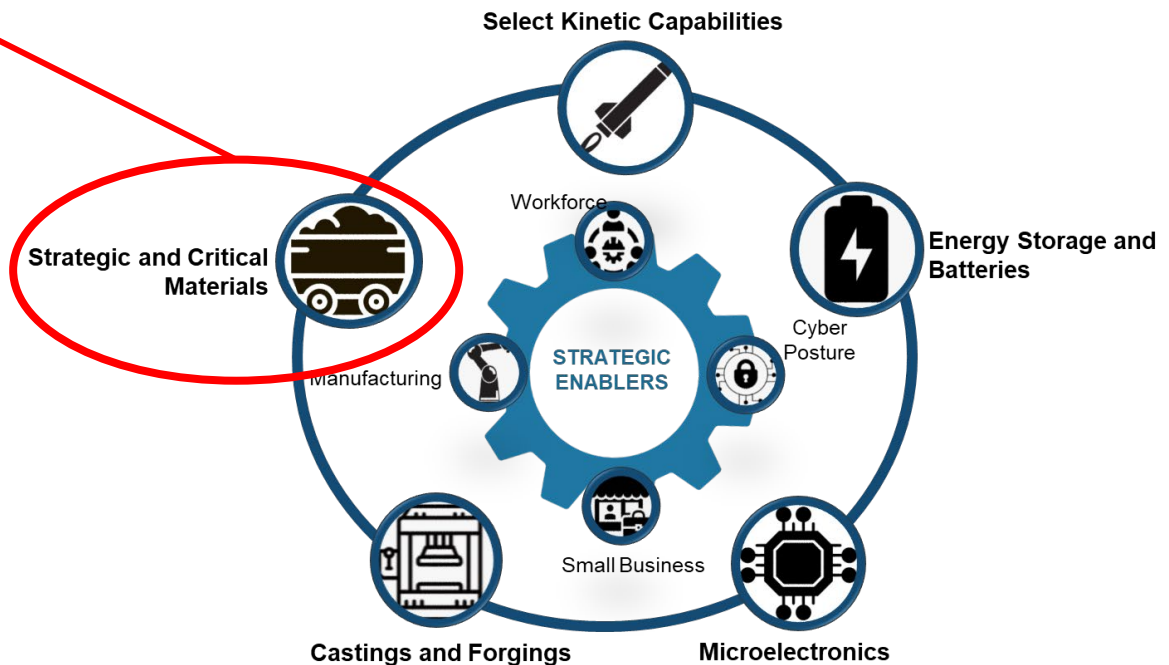
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Sector Challenges

- Concentration of supply
- Single-source suppliers
- Price shocks
- Human capital gaps
- Conflict minerals and organized crime



MCEIP Support: Establishing domestic mining, recycling, and mine-to-application (such as magnet) supply chains across all sectors



Defense Production Act Investments (DPAI)



What is the DPA?

- ❑ The DPA authorizes the President to ensure the availability of domestic sources to meet the United States' defense, essential civilian, and homeland security requirements.
- ❑ By executing its mission, the DPA Title III program reduces the nation's reliance on foreign supply chains and ensures the integrity of materials supplied to the American Warfighter.
- ❑ The DPA Title III program, governed by 50 USC 4531-4534, is one of the key investment tools of the Industrial Base Policy office.
- ❑ **The execution of Section 303 (50 U.S.C. § 4533) authorities requires the President, on a non-delegable basis, to identify a domestic industrial base shortfall as meeting three specific criteria:**
 - The industrial resource, material, or critical technology item is essential to national defense;
 - Without Presidential action under [50 U.S.C. § 4533], United States industry cannot reasonably be expected to provide the capability for the needed industrial resource, material, or critical technology item in a timely manner; and
 - Purchases, purchase commitments, or other action pursuant to [50 U.S.C. § 4533] are the most cost effective, expedient, and practical alternative method for meeting the need



DPA Title III Authorities and Priority Areas



- Defense Production Act Investments (DPAI) office oversees the execution of Titles I and III of the DPA
- The Defense Production Act (DPA), enacted in 1950 and last renewed in 2018, **provides the President a broad set of authorities to ensure the timely availability** of essential domestic industrial resources to support **national defense and homeland security requirements**.
- The DPA Title III program office has **three statutory priority areas**

50. U.S.C. §4531-4533

Sustain Critical Production	Commercialize Research and Development Efforts	Scale Emerging Technologies
<p>“To create, maintain, protect, expand, or restore domestic industrial base capabilities essential for National Defense”</p> <p>Example: A project to sustain a heavy forging capability ensured the Navy had access to a domestic supply source for propulsion shafts and nuclear reactor containment vessels</p>	<p>“From Government sponsored research and development to commercial applications,” and “from commercial research and development to National Defense”</p> <p>Example: A project to support additive manufacturing for liquid rocket engines reduced the cost of critical components by employing this breakthrough technology</p>	<p>“For the increased use of emerging technologies in security program applications and the rapid transition of emerging technologies”</p> <p>Example: A project to expand production of inverted metamorphic solar cells which can serve as replacement for traditional germanium solar cells in photovoltaic batteries</p>



DPA Title III Statutory Criteria/Authority

- ❑ **Under peacetime conditions, the DPA statute imposes constraints on the exercise of Section 303 authorities:**
 - All investments require a Presidential Determination (PD)
 - PD's are non-expiring and able to be leveraged for different projects addressing the same shortfalls. They also vary in breadth and scope depending upon the shortfall/challenge addressed.
 - PD's are **not** an appropriation or funding mechanism nor are they a mandate to address a specific shortfall or pursue a specific course of action.
- ❑ **New DPA Title III Authority in the FY24 NDAA**
 - In addition to Canada, Australia and the UK are now considered 'domestic source', with a limitation:
 - (I) IN GENERAL.—A business concern described in clause (i)(I)(bb) may be treated as a domestic source only for purposes of the exercise of authorities under title III relating to national defense matters **that cannot be fully addressed with business concerns described in clause (i)(I)(aa).**



Innovation Capability and Modernization (ICAM)



Building the “Next Generation of the Arsenal of Democracy” through execution of the IBAS Program

Expanded use - Powerful authorities with built-in agility enables rapid pivot/re-tooling of programs

10 U.S.C. 4817 – Industrial Base Fund

1. Support the monitoring and assessment of the industrial base
2. Address critical issues in the industrial base relating to urgent operational needs
3. Support efforts to expand the industrial base
4. Address supply chain vulnerabilities

Mission

Strengthen the competitive posture of the U.S. defense industrial base in the era of global competition

Vision

A modern U.S. defense industrial base that fortifies traditional technical capabilities and forges emerging sectors to respond at-will to national security requirements

Priorities

- **Prepare the defense industrial workforce.** Promote, elevate, and accelerate the industrial talent pipelines
- **Ready the modern defense industrial base.** Advance and sustain traditional defense manufacturing sectors
- **Prepare for the future.** Identify, attract, and cultivate emerging defense sectors
- **Assess and shape risks.** Mitigate supply chain vulnerabilities within the global defense industrial base
- **Build and strengthen partnerships.** Collaborate across the global defense industrial base



Innovation Capability and Modernization (ICAM)



- ❑ Built to achieve 21st century industrial dominance
 - Convening and catalyzing on shared interests creates return on investment
 - Investments mitigate competitive issues and improve DIB readiness and force posture
- ❑ Strategic vision and partnerships aligned with national defense/economic policies
 - Broad authorities positions the IBAS Program to address challenges and achieve National Security Strategy goals
- ❑ Effective early warning “ground sensor” of industrial issues
 - Boots on the ground -walk the floors to inform and update DoD and IBP leadership
 - Tactical response to red and blue disruptions of supply chain
- ❑ **Credibility with Industry: “we talk shop” and execute at pace**
 - Full-spectrum operations—problem identification through acquisition award
 - Cornerstone consortia address broad range of industry needs
 - Acquisition strategy to award <120 days



IBAS Acquisition Vehicles

Cornerstone Other Transaction (OT) Vehicle

- ❑ Established February 2018 to be a **Government-run**, integrated industrial base resiliency mechanism to create dynamic relationships across the DIB
- ❑ Authority originates from 10 U.S. Code 2371b – Authority of the DoD to carry out certain prototype projects
- ❑ DIB resiliency and supply chain assurance initiatives focus on “prototype” projects, capabilities, and capacities supporting a broad range of requirements
- ❑ Cornerstone OT strengths:
 - Common Intellectual Property Agreement
 - Common Data Sharing Agreement
 - Common Management Agreement
- ❑ To join cornerstone and submit proposals, please visit <https://cornerstone.army.mil/>



***Cornerstone of the
American Military
Competitive Edge***



MCEIP Energy Storage and Batteries Roadmap



DPA Awarded Efforts: Obligation (Fully or Partially) Occurred

ICAM Awarded Efforts: Obligation (Fully or Partially) Occurred

DPA Planned Efforts: Not Awarded to Date

ICAM Planned Efforts: Not Awarded to Date

Targeted Investment Areas	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Feasibility Studies			\$15M Jervois Mining - Cobalt				
				\$37.5M Graphite One (Alaska) - Graphite Mining and Processing			
				\$3.2M South Star - CSP Graphite Processing			
				\$7M Doe Run - Cobalt and Nickel Processing			
				\$20M South32 - Manganese Extraction			
				\$6.5M Fortune Minerals - Cobalt Sulfate and Bismuth metal oxide			
				\$8.4M Lomiko Metals - Natural Flake Graphite Mining			
						\$17.0M Ni, Cu, Co, Platinum Group Mine Development	
Modernization							
				\$90M Albemarle U.S. - King's Mountain Lithium			
				\$20.6M Talon Nickel - Nickel Extraction/Processing			
					\$11.8M Lithium Mine Development		
					\$20M Cobalt Sulfate Processing		
					\$3.06M Cathode Active Materials Production		
					\$5M Battery Manufacturing Supply Chain Resilience		
				\$3M Advanced Electrification Demonstration			



MCEIP Microelectronics Roadmap

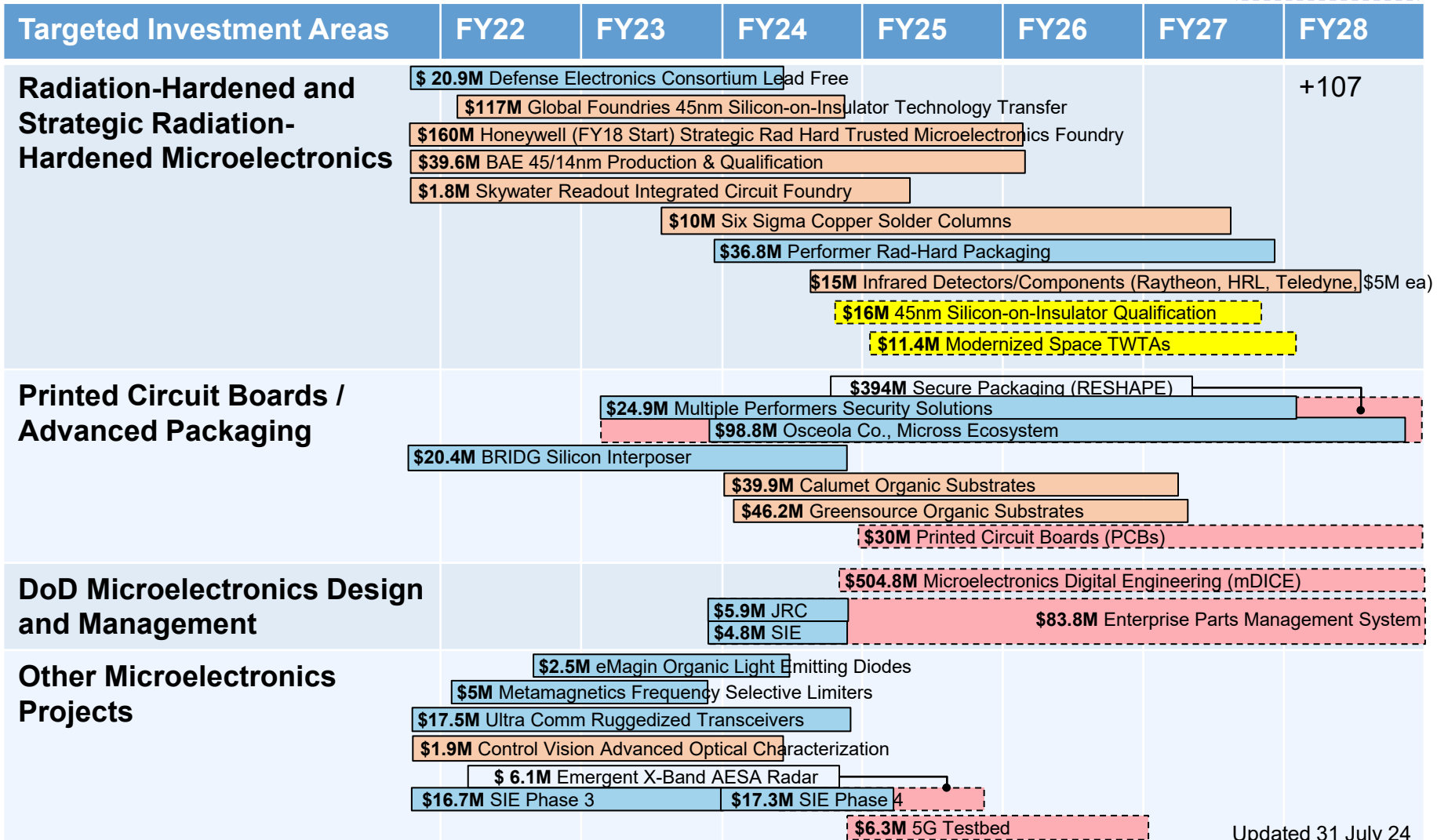


DPAI Awarded Efforts: Obligation (Fully or Partially) Occurred

DPAI Planned Efforts: Not Awarded to Date

ICAM Awarded Efforts: Obligation (Fully or Partially) Occurred

ICAM Planned Efforts: Not Awarded to Date



Updated 31 July 24



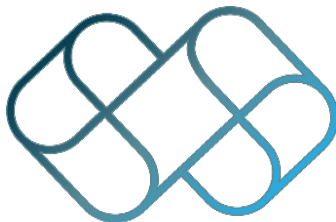
Defense Industrial Base Consortium



MCEIP recently awarded an Other Transaction Agreement (OTA) to create the Defense Industrial Base Consortium (DIB-C).

DIB-C Purpose

- Enable more rapid execution of Defense Production Act funding
- Address defense supply chain issues, develop the industrial workforce, sustain critical production.
- Increase participation from Non-Traditional Defense Contractors (NDCs), Non-Profit Research Institutes (NRIs), and small businesses.
- Allow MCEIP access to commercial solutions for defense requirements and innovations from industry, NRIs (academia), and NDCs.
- Allow for complementary investments from other federal agencies to build a robust, resilient modernized defense industrial ecosystem.



**DEFENSE INDUSTRIAL
BASE CONSORTIUM**

www.dibconsortium.org



Other Transaction Agreement Overview



- MCEIP has worked with WHS to establish a consortium-based other transaction authority (OTA) aligned with IBP priorities and completely overseen by A&S awarded 12/31/2023.
 - Able to support all IBP directorates (e.g., Title III, IBAS, OSBP, PA&T, C3/microelectronics etc.)
- 10-year period of performance, no funding ceiling
- Focused on rapidly scaling emerging technologies to build a robust, resilient domestic industrial base
 - Most OTAs focus on R&D, with minimal impact on industrial base
 - Unique value of IBP approach is leveraging OTA to stimulate growth of the industrial base

Identified Benefits of OTA	
Offers agile acquisition vehicle tailored to each project	Diversifies sources & expands industrial base
Enhances the speed of acquisition	Improves engagement with non-traditional businesses
Keeps pace with emerging commercial technology	Enables innovative approaches that reduce taxpayer costs



The Path Forward

U.S. Government Stakeholders in Strategic Materials Policy

President	Congress	DoD	DOE	DOI	DOC	DOS
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Tools to Secure Strategic Materials Supply Chains

Policy	Investment	International Partnerships	Stockpiling
<ul style="list-style-type: none"> • Analysis of vulnerabilities • Formulation of strategies • Domestic policies (tax incentives, mining laws, and much more) • DoD acquisition policies • International trade agreements and tariffs 	<ul style="list-style-type: none"> • Early-stage research and technology • Establishment or expansion of large-scale capacity • Workforce • Government-owned or Public-Private Partnership 	<ul style="list-style-type: none"> • Share information and best practices • Promote investment • Support secure suppliers in partner nations • Security of Supply Agreements (SOSA) 	<ul style="list-style-type: none"> • Reduce U.S. vulnerability to short-term supply disruptions. • Analysis of U.S. shortfall risks. • DoD National Defense Stockpile • Memorandum of Agreement for Joint Stockpiling (DoD-DOE-DOS)



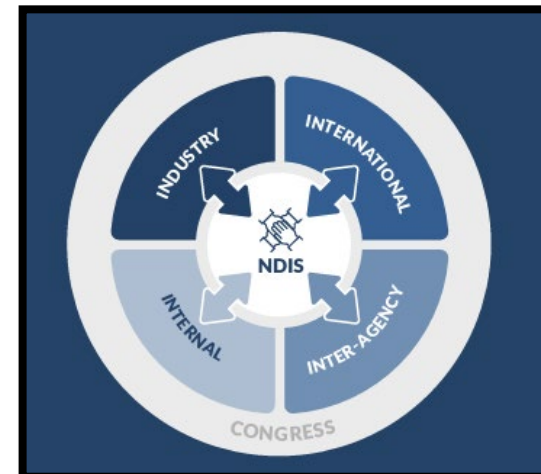
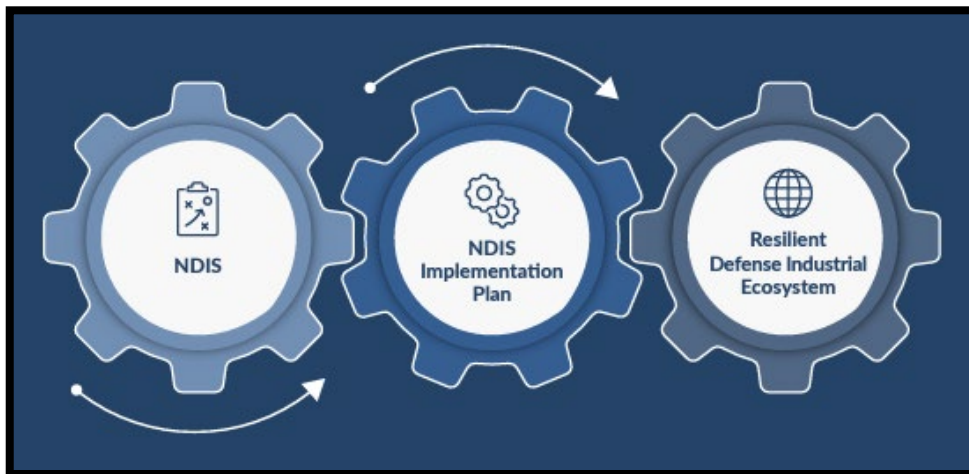
MCEIP FY24 In Review



NDIS Implementation Plan (NDIS-IP)



- ❑ On October 29, 2024, the DOD (OASD-IBP) published the unclassified National Defense Industrial Strategy Implementation Plan (NDIS-IP), detailing how the DoD will achieve the four strategic priorities laid out in the NDIS
- ❑ The document outlines ongoing and future actions that DoD is taking, to modernize the defense industrial base
 - Describes six cross-cutting initiatives and associated lines of effort, which will enable the DoD to achieve a more resilient defense industrial ecosystem and buy-down risks
 - Demonstrates activities and initiatives that the U.S. Government, private industry, and international allies and partners are undertaking, emphasizing that this effort cannot be a DoD-only initiative





NDIS-IP Six Key Implementation Initiatives



Initiative 1: Indo-Pacific Deterrence

Fair market mechanisms and U.S. investments in the Indo-Pacific bolster defense industries, enhance deterrence, and strengthen partnerships to promote regional security and a free and open Indo-Pacific.

Initiative 2: Production and Supply Chains

Effective supply chain management ensures rapid and secure production of defense technologies by addressing vulnerabilities, enhancing visibility, and promoting resilient sourcing strategies.

Initiative 3: Allied and Partner Industrial Collaboration

Industrial collaboration with key allies and partners strengthens the U.S. defense industrial base, enhancing economic deterrence and readiness through the advancement of dynamic production and capabilities.



NDIS-IP Six Key Implementation Initiatives



Initiative 4: Capabilities and Infrastructure Modernization

Modernizing capabilities, infrastructure, and supply chains in the defense industrial base ensures adaptability, scalability, and readiness, improving economic deterrence and military strength through collaboration with allies and partners.

Initiative 5: New Capabilities Using Flexible Pathways

Promoting rapid fielding of new capabilities through flexible acquisition pathways - shifting from program-centric to portfolio-centric approaches, and leveraging Middle Tier of Acquisition (MTA) and Other Transaction Authorities (OTA) to streamline processes, accelerate innovations, and support small businesses.

Initiative 6: Intellectual Property and Data Analysis

Integrating intellectual property planning into acquisition strategies protects investments, fosters competition, and ensures effective use of IP resources throughout the program life cycle.



NDIS-IP LOE's, Timeframes, and Risks



		Risk Mitigation Timeframe	Risks of Inaction to U.S. National Security and Defense Industrial Ecosystem
1: Indo-Pacific Deterrence			
LOE 1.1	Supplementing Key Munitions and Missiles	Long-Term (5+ years)	<ul style="list-style-type: none"> • Inability to compete globally • Inability to meet pacing challenge • Fragile supply chains
LOE 1.2	Submarine Industrial Base	Long-Term (5+ years)	
2: Production and Supply Chains			
LOE 2.1	Assessing Supply Chain Risk Vulnerabilities	Immediate (0-2 years)	<ul style="list-style-type: none"> • Inability to onshore critical manufacturing • Increased technological risk • Supply and material shortfalls • Limited spare capacity
LOE 2.2	Onshoring Critical Production Capacity	Long-Term (5+ years)	
LOE 2.3	Industrial Cybersecurity	Immediate (0-2 years)	
LOE 2.4	Adversarial Capital	Medium-Term (3-4 years)	
LOE 2.5	Stockpiling	Long-Term (5+ years)	
LOE 2.6	Maritime Economic Deterrence	Medium-Term (3-4 years)	
5: New Capabilities Using Flexible Pathways			
LOE 5.1	Replicator Initiative	Immediate (0-2 years)	<ul style="list-style-type: none"> • Limited innovation • Technological obsolescence • Limited scale
LOE 5.2	Rapid Defense Experimentation Reserve	Immediate (0-2 years)	
LOE 5.3	Flexible Acquisition Pathways	Immediate (0-2 years)	



Questions?

