Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	67.693	40.368	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
843: *DIU Prototyping*	62.693	25.155	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
844: *National Security Innovation Capital*	5.000	15.213	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing

Note

New Start (Y/N): No

Starting in FY 2024, funding re-aligned to new National Security Innovation Capital (NSIC) Program Element (PE) 0603021D8Z and Defense Innovation Unit PE 0603342D8Z to better align funding to the mission.

A. Mission Description and Budget Item Justification

This program supports the Department's initiatives to Build a Sustainable and Long-Term Advantage and Build a Resilient Joint Force and Defense Ecosystem.

The Defense Innovation Unit (DIU) mission is to strengthen U.S. national security by accelerating the adoption of commercial technology throughout the military and growing the national security innovation base. DIU partners with organizations across the DoD and the interagency to rapidly prototype, field, and scale commercial solutions that can save lives, lead to new operational concepts, increase efficiencies, and save taxpayer dollars. With offices in Silicon Valley, Boston, Austin, Chicago, and in the Pentagon, DIU is able to attract the best and brightest talent and cutting-edge solutions.

The National Defense Strategy for FY 2022 asserts that we have returned to an era of inter-state strategic competition with Russia and China, heightening the sense of urgency with which the nation, and Department of Defense (DoD), must reform our acquisition policies and approach to sustaining military-technical superiority. Notably, 11 of the 14 critical technology focus areas are dual use and rapidly developed by the commercial sector. While adversaries are challenging the U.S. across several dimensions, most importantly, our near peer competitors are at par or ahead of the United States in critical technology areas. Consistent with the Administration's research and development budget priorities, this new era of competition requires technological superiority to ensure the United States' ability to project power, maintain international norms and rule of law, provide credible deterrence, and prevail in conflict.

On April 4, 2023, the Secretary of Defense issued a memorandum re-elevating the DIU Director as a direct report to the Secretary of Defense and refocusing DIU on delivering strategic impact at scale and at speed through direct operations and catalyst of the innovation community for the Department.

DIU increases the Department's access to commercial technologies and talent, with the ultimate goal of fielding commercial technology at a pace that effectively deters our adversaries and helps ensure victory if we are forced to fight. Working across the country, and in collaboration with our allies and partners, DIU is developing new ways of doing business, growing our national security innovation base to include more "non-traditional" companies that had previously not collaborated with the military,

working with traditional vendors in novel ways to increase efficiency, and challenging innovators to share their knowledge and expertise in support of our nation's defense.

Through a competitive prototype process, DIU identifies and provides access to technology companies and products on behalf of DoD organizations. Additionally, DIU executes projects to leverage commercial sector technology analogous to military applications thereby increasing dual-use technology agility for the DoD. DIU Prototyping funds facilitate the award of projects that can augment commercial technologies, existing government-owned capabilities, or concepts for defense application.

DIU focuses on six technology areas where commercial industry is the lead:

• Artificial Intelligence (AI)/ Machine Learning (ML) – Applying AI/ML learning to accelerate critical decision making and operational impact.
• Autonomy – Adopting and countering autonomous systems with a focus on human-machine interaction and scalable teaming.
• Cyber – Making enterprise combat information open, accessible, and secure for defense personnel across the globe.
• Energy - Leveraging proven advancement in energy and materials technology to enhance capabilities and strengthen resilience across installation and distributed operations.
• Human Systems – Optimizing the human system and its enabling platforms through enhanced equipment, innovative training, and novel health applications.
• Space – Developing on-demand access to space, persistent satellite capabilities, and broadband space data transfer.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	41.902	0.000	0.000	-	0.000
Current President's Budget	40.368	0.000	0.000	-	0.000
Total Adjustments	-1.534	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-1.530	-			
• Cancelled Account	-0.004	-	-	-	-

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 843: *DIU Prototyping*		
Congressional Add: *Orbital Prototyping*	11.000	-
Congressional Add: *Visual Augmentation Technology*	6.500	-

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Office of the Secretary Of Defense	Date: March 2024
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Congressional Add Subtotals for Project: 843	17.500	-
Project: 844: *National Security Innovation Capital*		
Congressional Add: *Long Duration Energy Storage, including Lithium Batteries (also known as Jumpstart for Advanced Battery Standardization)*	0.000	-
Congressional Add Subtotals for Project: 844	0.000	-
Congressional Add Totals for all Projects	17.500	-

Change Summary Explanation

Starting in FY 2024, funding re-aligned to National Security Innovation Capital (NSIC) PE 0603021D8Z and Defense Innovation Unit PE 0603342D8Z to better align funding to the mission.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense											Date: March 2024	
Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*				Project (Number/Name) 843 / *DIU Prototyping*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
843: *DIU Prototyping*	62.693	25.155	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Innovation Unit (DIU) mission is to strengthen U.S. national security by accelerating the adoption of commercial technology throughout the military and growing the national security innovation base. DIU partners with organizations across the DoD and the interagency to rapidly prototype, field, and scale commercial solutions that can save lives, lead to new operational concepts, increase efficiencies, and save taxpayer dollars. With offices in Silicon Valley, Boston, Austin, Chicago, and in the Pentagon, DIU is able to attract the best and brightest talent and cutting-edge solutions.

The National Defense Strategy for FY 2022 asserts that we have returned to an era of inter-state strategic competition with Russia and China, heightening the sense of urgency with which the nation, and Department of Defense (DoD), must reform our acquisition policies and approach to sustaining military-technical superiority. Notably, 11 of the 14 critical technology focus areas are dual use and rapidly developed by the commercial sector. While adversaries are challenging the U.S. across several dimensions, most importantly, our near peer competitors are at par or ahead of the United States in critical technology areas. Consistent with the Administration's research and development budget priorities, this new era of competition requires technological superiority to ensure the United States' ability to project power, maintain international norms and rule of law, provide credible deterrence, and prevail in conflict.

DIU increases the Department's access to commercial technologies and talent, with the ultimate goal of fielding technology at a pace that effectively deters our adversaries and helps ensure victory if we are forced to fight. Working across the country, and in collaboration with our allies and partners, DIU is developing new ways of doing business, growing our national security innovation base to include more "non-traditional" companies that had previously not collaborated with the military, working with traditional vendors in novel ways to increase efficiency, and challenging innovators to share their knowledge and expertise in support of our nation's defense.

Through a competitive prototype process, DIU identifies and provides access to technology companies and products on behalf of DoD organizations. Additionally, DIU executes projects to leverage commercial sector technology analogous to military applications thereby increasing dual-use technology agility for the DoD. DIU Prototyping funds facilitate the award of projects that can augment commercial technologies, existing government-owned capabilities, or concepts for defense application.

DIU focuses on six technology areas where commercial industry is the lead:

• Artificial Intelligence (AI)/ Machine Learning (ML) – Applying AI/ML learning to accelerate critical decision making and operational impact.
• Autonomy – Adopting and countering autonomous systems with a focus on human-machine interaction and scalable teaming.
• Cyber – Making enterprise combat information open, accessible, and secure for defense personnel across the globe.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 843 / *DIU Prototyping*

• Energy - Leveraging proven advancement in energy and materials technology to enhance capabilities and strengthen resilience across installation and distributed operations.
• Human Systems – Optimizing the human system and its enabling platforms through enhanced equipment, innovative training, and novel health applications.
• Space – Developing on-demand access to space, persistent satellite capabilities, and broadband space data transfer.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Defense Innovation Unit (DIU) Prototyping ***Description:*** DIU executes its mission through partnerships with Services, combatant commands, and other DoD organizations to prototype commercial solutions and scale across the Joint Force.	7.655	-	-
Accomplishments/Planned Programs Subtotals	7.655	-	-

	FY 2023	FY 2024
Congressional Add: Orbital Prototyping ***FY 2023 Accomplishments:*** These funds have been allocated to support the development and delivery of strategically impactful capabilities to the Space Domain for the Joint Force to include: • DIU RAPID on-orbit refueling program that is a multi-phase program to develop an agile and persistent ability to refuel to maneuver without regret, enabling survivable, persistent, and effective use of systems • The newly launched Novel Responsive Space Delivery will prototype strategically impactful delivery of cargo to, through, and from space. • Hybrid Space Architecture to develop secured, assured, low latency and multi-path communications spanning global conflict, contingency and peacetime • Continue prototyping low-cost, responsive launch options for the Department	11.000	-
Congressional Add: Visual Augmentation Technology ***FY 2023 Accomplishments:*** Tactical Augmented Reality is a modular augmented-reality vision system that provides users with a real-time overlay of tactical data. DIU is partnered with the Defense Intelligence Agency (DIA), Special Operations Command (SOCOM), and Air Force Life Cycle Management Center / Rapid Sustainment Office (AFLCMC/RO) to deliver Tactical Augmented Reality. The funds have been allocated to multiple vendors to prototype and combine sensors, networking, operating system, and visualization capabilities in support of Tactical Augmented Reality. The solution will allow DoD users to reduce the cognitive load associated with the display and processing of real time data in both static use	6.500	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 843 / *DIU Prototyping*

	FY 2023	FY 2024
cases (e.g. aircraft maintenance) and dynamic use cases (e.g. tactical operations on the battlefield), leading to enhanced lethality, survivability, and mission accomplishment.		
Congressional Adds Subtotals	17.500	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

DIU primarily utilized Title 10 U.S. Code § 4022 authority to prototype projects to enhance military effectiveness through the Commercial Solutions Opening (CSO) process.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 843 / *DIU Prototyping*

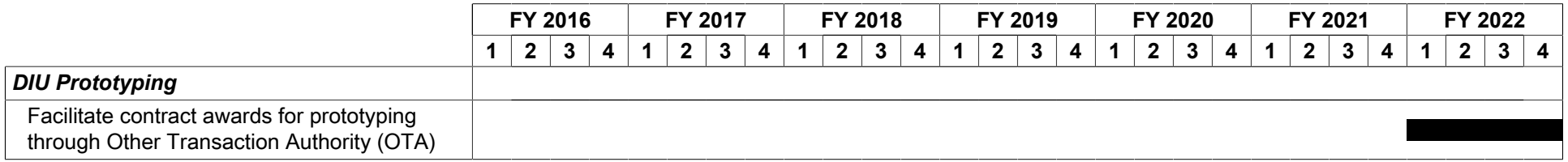
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DIU Prototyping	MIPR	Various : Various	23.055	25.155		-		-		-		-	Continuing	Continuing	-
Autonomy	C/FFP	Various : Various	3.650	-		-		-		-		-	Continuing	Continuing	-
Cyber	C/FFP	Various : Various	3.820	-		-		-		-		-	Continuing	Continuing	-
Human System	C/FFP	Various : Various	3.491	-		-		-		-		-	Continuing	Continuing	-
Space	C/FFP	Various : Various	8.677	-		-		-		-		-	Continuing	Continuing	-
COVID	C/FFP	Various : Various	5.000	-		-		-		-		-	Continuing	Continuing	-
AE&M	C/FFP	Various : Various	0.000	-		-		-		-		-	Continuing	Continuing	-
National Security Innovation Capital	MIPR	Various : Various	15.000	-		-		-		-		-	Continuing	Continuing	-
		Subtotal	62.693	25.155		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	62.693	25.155		-		-		-		-	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 843 / *DIU Prototyping*



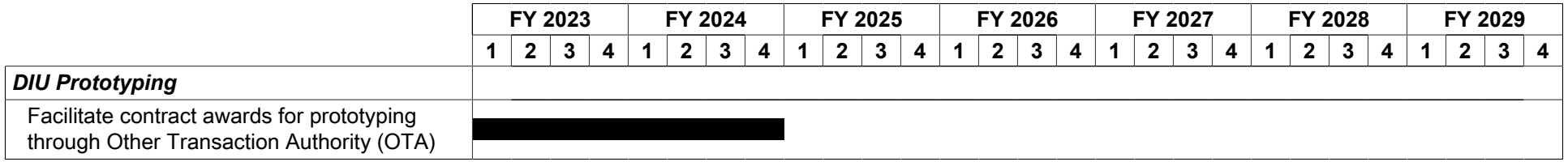


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 843 / *DIU Prototyping*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DIU Prototyping				
Facilitate contract awards for prototyping through Other Transaction Authority (OTA)	1	2022	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense			Date: March 2024
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	Project (Number/Name) 844 / *National Security Innovation Capital*	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
844: *National Security Innovation Capital*	5.000	15.213	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The mission of NSIC is to accelerate the development of dual-use hardware technologies critical to our national security and economic competitiveness. It is an initiative that enables dual-use hardware startups to advance key milestones in their product development by addressing the shortfall of private investment from trusted sources. NSIC's support enables companies to develop their technologies and products more rapidly. The resulting reductions in technical risk, along with the signaling of DoD interest in such dual-use companies, attracts trusted private investment that might otherwise sit on the sidelines. The overall result is more rapid and robust development of hardware in the U.S., the expansion of the defense industrial base and reduction of technology flow to adversaries.

Initial broad areas of focus are autonomy, communications, power, sensors, and space.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: National Security Innovation Capital (NSIC) ***Description:*** In FY 2021 NSIC received an appropriation of $15M from Congress. NSIC utilized that appropriation to fund contracts with nine startup companies whose technologies covered the five different Topics of Interest described above. Those technologies involved, among others: hypersonics, quantum phenomena and microelectronics. Contracts ranged from $0.5 million to $3 million over periods of performance between twelve and eighteen months. The companies are located across the country including TX, SC, MI, MA, CO, and CA. This $15 million congressional add was executed in Project Code P843 of this Program Element.	15.213	-	-
Accomplishments/Planned Programs Subtotals	15.213	-	-

	FY 2023	FY 2024
Congressional Add: Long Duration Energy Storage, including Lithium Batteries (also known as Jumpstart for Advanced Battery Standardization) ***FY 2023 Accomplishments:*** N/A	0.000	-
Congressional Adds Subtotals	0.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 844 / *National Security Innovation Capital*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

NSIC primarily utilizes Title 10 U.S. Code § 2371b Other Transactions Authority to prototype projects to further develop dual-use, hardware-based technologies that are critical to the military through the Commercial Acceleration Opportunity (CAO) process.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 844 / *National Security Innovation Capital*

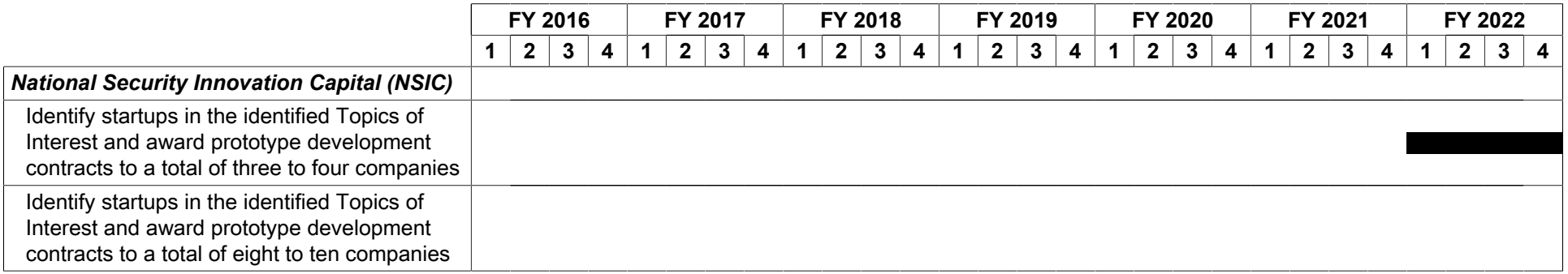
Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NSIC	C/TBD	Various : Various	5.000	15.213	Mar 2023	-		-		-		-	Continuing	Continuing	-
		Subtotal	5.000	15.213		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.000	15.213		-		-		-		-	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 844 / *National Security Innovation Capital*



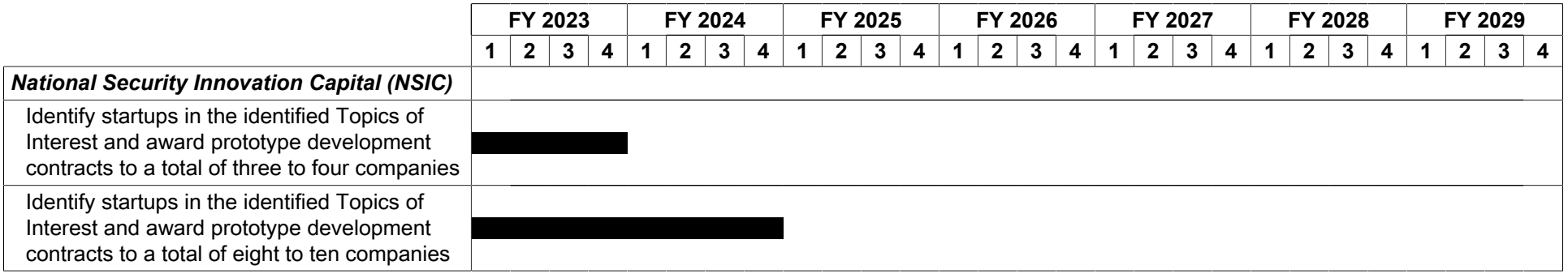


Exhibit R-4A, RDT&E Schedule Details: PB 2025 Office of the Secretary Of Defense		Date: March 2024
Appropriation/Budget Activity 0400 / 4	**R-1 Program Element (Number/Name)** PE 0604341D8Z / *Defense Innovation Unit (DIU) Prototyping*	**Project (Number/Name)** 844 / *National Security Innovation Capital*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
National Security Innovation Capital (NSIC)				
Identify startups in the identified Topics of Interest and award prototype development contracts to a total of three to four companies	1	2022	4	2023
Identify startups in the identified Topics of Interest and award prototype development contracts to a total of eight to ten companies	1	2023	4	2024