Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Office of the Secretary Of Defense	Date: April 2022
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 0603950D8Z / *National Security Innovation Network*

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	37.658	38.532	36.203	22.028	-	22.028	21.955	21.882	21.746	22.180	-	-
845: *National Security Innovation Network*	37.658	38.532	36.203	22.028	-	22.028	21.955	21.882	21.746	22.180	-	-

Note

New Start (Y/N): No

A. Mission Description and Budget Item Justification

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

The National Security Innovation Network (NSIN) is a program office within the Office of the Under Secretary of Defense for Research and Engineering (USRE) and authorized through Section 219 of the National Defense Authorization Act for FY 2021. NSIN reports through the Defense Innovation Unit (DIU) to the Undersecretary of Defense for Research and Engineering. NSIN has been chartered with a mission to build networks of innovators that generate new solutions to national security problems. NSIN develops programs that are designed to help other Department of Defense (DoD) entities from the Military Services, Joint Staff, Combatant Commands, Defense Agencies, and Field Activities solve problems with non-traditional partners from academia and the start-up community. NSIN is organized around three core lines of effort. These lines of effort include: 1) creating new opportunities for National Security Service by building models of service that account for generational and cultural differences between the military, academic, and venture communities, engaging a greater cross-section of the nation's talent in national security, and providing flexible pathways to official service within the Department of Defense; 2) solving national security problems by collaborating with partners from the academic and venture communities by engaging new problem-solvers in collision events with DoD customers that generate novel concepts and solutions and building a national network of problem-solving ecosystems that leverage the competitive advantages of regions and commercial innovation hubs for DoD customers; and 3) accelerating the adoption of novel concepts and solutions by facilitating engagement with DoD end-users and transition partners to stimulate dual-use venture growth and improving Technology Transfer and Transition (T3) rates for DoD lab technology through dual-use commercialization via early-stage ventures.

The NSIN's physical network is composed of 11 Regional Directors, each of which is located in critical venture innovation hubs throughout the country to include: Boston, MA; New York City, NY; Washington, DC; Orlando, FL; Chicago, IL; St. Louis, MO; Austin, TX; Denver, CO; Seattle, WA; San Diego, CA; and San Francisco, CA. They are supported by University Program Directors (UPDs) that are embedded at critical universities throughout the country and Spoke Directors (SDs) who focus on critical, smaller ecosystems within a larger Region. At the objective state, NSIN envisions approximately 55 such UPDs/SDs throughout the country and in all 50 states.

The NSIN executes a suite of 14 programs (e.g., Hacking for Defense, X-Force, Foundry) and multiple pilot activities (see below) with annual costs of approximately $40.000 million, inclusive of the personnel that support program planning, execution, and assessment.

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The NSIN has been a continuous Congressional interest program that has received funding in FY 2016 ($5.000 million), FY 2017 ($25.000 million), FY 2018 ($25.500 million), FY 2019 ($15.000 million), FY 2020 ($40.000 million), and FY 2021 ($40.000 million). In prior years, NSIN was predominantly funded through Congressional Additions but was included in the President's Budget submission for FY 2020 ($25.000 million). FY 2022 is the first year that NSIN appears as a funded Program Element throughout the FYDP and its program mission was codified in Section 219 of the FY 2021 NDAA.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	38.532	21.270	0.000	-	0.000
Current President's Budget	38.532	36.203	22.028	-	22.028
Total Adjustments	0.000	14.933	22.028	-	22.028
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	15.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• FFRDC	-	-0.067	-	-	-
• Economic Assumption	-	-	0.758	-	0.758
• Adjustments to Budget Year	-	-	21.237	-	21.237
• Diversity, Equity, Inclusion, and Accessibility	-	-	0.033	-	0.033

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: 845: *National Security Innovation Network*		
Congressional Add: *NSIN*	38.532	15.000
Congressional Add Subtotals for Project: 845	38.532	15.000
Congressional Add Totals for all Projects	38.532	15.000

Change Summary Explanation

FY 2022 funding supports the Emerge (rebranded from National Security Academic Accelerator (NSA2)) program, expands H4D efforts, expands the Propel program, and pilots additional program concepts in partnership with the Office of Small Business Programs, ManTech, SBIR office, and offices of the Deputy Director of Research and Engineering for Modernization.

In FY 2022 Appropriation includes a $15 million program increase.

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FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense			Date: April 2022
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603950D8Z / *National Security Innovation Network*	Project (Number/Name) 845 / *National Security Innovation Network*	

COST ($ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
845: *National Security Innovation Network*	37.658	38.532	36.203	22.028	-	22.028	21.955	21.882	21.746	22.180	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

NSIN executes the following programs and pilot activities, all of which are designed to enhance DoD's access to technologists and entrepreneurs for the purposes of improving its talent pool, enable collaboration with universities and the early-stage venture community to develop novel concepts and solutions for end-user problems and requirements, and prototype and test new technologies to place them on the path to becoming programs of record or integrated with existing platforms.

- Technology and National Security Fellowship: a national, one-year fellowship pilot that places STEM graduates into the immediate offices of policymakers in Congress and the Pentagon for the purposes of enhancing technical literacy and improving policy outcomes through an informed understanding of emerging and nascent technologies.
- Hirethon: a national program that leverages NSIN's existing and emerging network to pair exceptionally qualified candidates with DoD mission partners that plan to use direct or expedited hiring authorities to aid in job placement.
- X-Force Fellowship: a summer fellowship experience for current students that embeds project-based teams of graduate and undergraduate students with DoD mission partners for the purposes of developing early-stage prototypes. Occurs annually from June-August.
- Experts: a national program that identifies mid-career faculty experts with STEM, cyber, or entrepreneurial backgrounds and pairs them with DoD leadership for periodic consultations over the course of three months.
- Tech Squad: a national pilot that provides remote, part-time, voluntary service opportunities that connect early-career STEM professionals with DoD units to solve tech-oriented national security problems collaboratively.
- Hacking for Defense: a course taught at universities around the country that pairs DoD end-users with top university students for collaborative problem-solving over the course of an academic semester. Students work to develop a minimum viable product solution to improve the real-world problems of service members that can be adopted by the DoD end-users.
- Hacks: a national program that provides early-stage concept development and proof of principle solutions to DoD mission partners through dedicated, virtual, multi-day hackathons operated in conjunction with top universities and start-ups throughout the country.
- Bootcamp: a national program that provides crowd-sourced solutions for DoD mission partners by deploying faculty from top-tier research universities to bases and installations to facilitate early-stage concepts for technology and policy-based problems.
- Maker: a national program that offers rapid prototyping for solutions drawn from accepted novel solution concepts from NSIN programming, allowing customers to turn ideas from the abstract and theoretical into practical and real prototypes.
- Source: a national program that provides a virtual platform of crowd-sourced ideas that DoD leaders can interact with in the form of online innovation challenges.
- Capstone: a national program that pairs prototyping development needs for DoD mission partners with extant engineering capstone courses from top-tier research universities throughout the country. Outputs include TRL-4 prototypes that can undergo testing and evaluation.
- Starts: a national program that showcases high-TRL technologies to DoD mission partners for the purposes of enhanced tech scouting and improving technical capability gaps. Teams and companies with the technology that best meets a DoD mission partner's needs are awarded initial prototyping or testing contracts.

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Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 0603950D8Z / *National Security Innovation Network*	**Project (Number/Name)** 845 / *National Security Innovation Network*

- Vector: a national program that provides an accelerated learning opportunity based on the business fundamentals of dual-use venture creation. The program seeks prior NSIN programming alumni to participate for the opportunity to compete for a follow-on contract.
- Propel: a national program that partners with commercial incubators and accelerators to sponsor particularly promising technology and early-stage ventures into cohort-based customer discovery that improves DoD end-user validation.
- Foundry (rebranded from Defense Innovation Accelerator (DIA)): a national program that identifies breakthrough DoD lab technology and leverages it to solve the real-world problems of DoD and commercial customers. Teams of entrepreneurs, working with DoD lab scientists and technologists, assess the market viability and the potential to commercialize DoD lab technologies.
- Emerge Accelerator (rebranded from National Security Academic Accelerator (NSA2)): a national pilot that identifies extant university IP, matches it against DoD mission partner needs, and then commercializes the technology through entrepreneurial training, recruitment, and licensing agreements. Currently being executed at four pilot sites with the intent to expand it to an additional six (6) sites in FY 2022.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: National Security Innovation Network (NSIN)	-	21.203	22.028
Description: The NSIN mission is to build networks of innovators to generate new solutions for national security problems. It does this through three portfolios of programs and services designed to catalyze non-traditional problem-solving capabilities that combine warfighters, early-stage ventures, and applied academic communities at top-tier research universities. ***FY 2022 Plans:*** In addition to executing programs and pilots with its DoD mission partners, NSIN will: • Establish 15 project sites for the Emerge (rebranded from National Security Academic Accelerator (NSA2)) program in as many states. • Expand H4D efforts with NATO and other partners and allies including India, Japan, Australia, and New Zealand. (Not possible at FY21 President's Budget submission funding level.) • Expand the Propel program, which partners with commercial incubators and accelerators to sponsor early-stage dual-use ventures of DoD interest to up to 15 different sites throughout the United States. • Pilot additional program concepts in partnership with the Office of Small Business Programs, ManTech, SBIR office, and offices of the Deputy Director of Research and Engineering for Modernization. ***FY 2023 Plans:*** In addition to executing programs and pilots with its DoD mission partners, NSIN will: • Establish 15 project sites for the Emerge (rebranded from National Security Academic Accelerator (NSA2)) program in as many states. • Expand H4D efforts with NATO and other partners and allies including India, Japan, Australia, and New Zealand. (Not possible at the submitted President's Budget level.) • Expand the Propel program, which partners with commercial incubators and accelerators to sponsor early-stage dual-use ventures of DoD interest to up to 15 different sites throughout the United States.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
• Pilot additional program concepts in partnership with the Office of Small Business Programs, ManTech, SBIR office and offices of the Deputy Director of Research and Engineering for Modernization, including efforts for Diversity, Equity, Inclusion, and Accessibility. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** There was no significant change between FY 2022 and FY 2023.			
Accomplishments/Planned Programs Subtotals	-	21.203	22.028

	FY 2021	FY 2022
Congressional Add: NSIN	38.532	15.000
FY 2021 Accomplishments: FY 2021 Accomplishments: In addition to executing programs and pilots with its DoD mission partners, NSIN accomplished the following in FY21: • Expanded regional footprint with the addition of five Regional Directors and 11 University Program Directors (UPD) at Tier-1 and Tier-2 Research Institutions. This expansion included NSIN's first strategic partnership with a Historically Black College or University with the placement of a UPD at Florida A&M University. • Launched Mission Acceleration Center pilot in partnership with the Department of the Navy in Seattle, WA. This pilot program provides a physical center of gravity in the Pacific Northwest for new, non-traditional problem solvers to engage with the DoD. • Increased university engagement by 84% in FY21 relative to FY20. • Increased new participants in national security innovation by 124% in FY21 relative to FY20 to 4,014. 63% of the new participants were drawn from historically underrepresented (based on gender, race, and ethnicity) populations.		
FY 2022 Plans: In addition to executing the FY2022 Plans listed above, with the Congressional Add of $15m NSIN will: • Continue supporting the Mission Acceleration Center pilot and expand program offerings. • Establish rapid prototyping sites at new universities or accelerators to facilitate Maker projects. • Develop a deeper regional presence in Kansas, Oklahoma, Alabama, Minnesota, and Utah to facilitate NSIN programming opportunities. • Establish additional regional providers for the Bootcamp program, to keep up with the rapidly increasing demand signal from DoD Organizations.		

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	FY 2021	FY 2022
• Continue to expand Foundry (rebranded from the Defense Innovation Accelerator program) to other Government laboratories (E.G. DOE, NNSA, etc.), FFRDCs, and other sources of latent technology.		
Congressional Adds Subtotals	38.532	15.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A