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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Office of the Secretary Of Defense **Date:** February 2019

| | |
|---|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i> | R-1 Program Element (Number/Name) PE 0603950D8Z / <i>National Security Innovation Network</i> |
|---|---|

| COST (\$ in Millions) | Prior Years | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | 0.000 | 0.000 | 0.000 | 25.000 | - | 25.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 845: <i>National Security Innovation Network</i> | 0.000 | 0.000 | 0.000 | 25.000 | - | 25.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

Note

This is a new Program Element.

Prior year funds under its previous MD5 nomenclature in PE 0603580D8Z/607 received FY 2016 (\$5.000 million), FY 2017 (\$25.000 million), FY 2018 (\$25.500 million), and FY 2019 (\$15.000 million) as a Congressional interest program.

A. Mission Description and Budget Item Justification

The National Security Innovation Network (NSIN), previously executed under the name of the MD5 National Security Technology Accelerator (MD5), is a program office within the Office of the Undersecretary of Defense for Research and Engineering (OUSDR&E) and aligned under the Defense Innovation Unit (DIU). NSIN seeks to develop deep partnerships between the Department of Defense (DoD) and non-traditional problem-solving partners to include students and faculty at colleges and universities. The speed and reactivity of the modern technology-threat environment challenges the traditional top-down model of defense problem-solving and capability development. Mitigating these challenges require developing internal workforce and organizational competencies related to problem framing, knowledge and resource sharing, and non-traditional partnerships. Consistent with the National Defense Strategy, and FY 2020 OMB/OSTP research and development budget priorities for sustaining a military technological advantage, NSIN has a portfolio of innovation efforts that (1) accelerates capability development leveraging non-traditional collaborators and novel approaches, (2) augments the National Security Innovation Base (NSIB) through commercialization of DoD lab technology, and (3) enhances the DoD workforce through programs that develop new ways of solving critical problems.

This program seeks to maintain the long-term competitive advantage for the U.S. military over adversaries by increasing interactions between uniformed and civilian employees of the DoD with innovators and entrepreneurs outside of the DoD. This is accomplished by providing training and tools to these DoD “intrapreneurs” enabling them to find new ways to identify, frame, and solve problems as well as opening avenues to implement the solutions they create. Additionally, the programs executed create opportunities for external innovators and entrepreneurs to be exposed to DoD problems and demonstrate possible solutions.

NSIN carries out its mission via three portfolios of effort: Service, Collaboration, and Acceleration. The Service Portfolio is specifically designed to create new pathways to national security service for entrepreneurs and technologists that want to work with the DoD to solve problems in non-traditional ways. Collaboration provides problem-solving and new ideation spaces or Maker Centers for warfighters, academia and early-stage ventures to collectively identify novel applications and concepts to DoD problem sets. Acceleration programs that identify opportunities inside DoD that can be commercialized, or apply technology relevant to warfighter problem sets and advance the novel applications or solutions are created within the Collaboration Portfolio.

NSIN, under its previous MD5 nomenclature, has been a Congressional interest program that has received funding in FY 2016 (\$5.000 million), FY 2017 (\$25.000 million), FY 2018 (\$25.500 million), and FY 2019 (\$15.000 million).

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|---|---|

| B. Program Change Summary (\$ in Millions) | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 0.000 | 0.000 | 25.000 | - | 25.000 |
| Total Adjustments | 0.000 | 0.000 | 25.000 | - | 25.000 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • FFRDC Reductions | 0.000 | 0.000 | - | - | - |
| • Other Program Adjustments | - | - | 25.000 | - | 25.000 |

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 845: *National Security Innovation Network*

Congressional Add: *N/A*

| | FY 2018 | FY 2019 |
|--|----------------|----------------|
| | 0.000 | 0.000 |
| Congressional Add Subtotals for Project: 845 | 0.000 | 0.000 |
| Congressional Add Totals for all Projects | 0.000 | 0.000 |

Change Summary Explanation

The FY 2020 increase of \$25.000 million will fund three portfolios of effort: Service, Collaboration, and Acceleration designed to create new pathways to national security service to solve DoD problems in non-traditional ways.

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

| COST (\$ in Millions) | Prior Years | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| <i>845: National Security Innovation Network</i> | 0.000 | 0.000 | 0.000 | 25.000 | - | 25.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

Note

This is a new Program Element.
 Prior year funds under its previous MD5 nomenclature in PE 0603580D8Z/607 received FY 2016 (\$5.000 million), FY 2017 (\$25.000 million), FY 2018 (\$25.500 million), and FY 2019 (\$15.000 million) as a Congressional interest program.

A. Mission Description and Budget Item Justification

The National Security Innovation Network (NSIN), previously executed under the name of the MD5 National Security Technology Accelerator (MD5), is a program office within the Office of the Undersecretary of Defense for Research and Engineering (OUSDR&E) and aligned under the Defense Innovation Unit (DIU). NSIN seeks to develop deep partnerships between the Department of Defense (DoD) and non-traditional problem-solving partners to include students and faculty at colleges and universities. The speed and reactivity of the modern technology-threat environment challenges the traditional top-down model of defense problem-solving and capability development. Mitigating these challenges require developing internal workforce and organizational competencies related to problem framing, knowledge and resource sharing, and non-traditional partnerships. Consistent with the National Defense Strategy, and FY 2020 OMB/OSTP research and development budget priorities for sustaining a military technological advantage, NSIN has a portfolio of innovation efforts that (1) accelerates capability development leveraging non-traditional collaborators and novel approaches, (2) augments the National Security Innovation Base (NSIB) through commercialization of DoD lab technology, and (3) enhances the DoD workforce through programs that develop new ways of solving critical problems.

This program seeks to maintain the long-term competitive advantage for the U.S. military over adversaries by increasing interactions between uniformed and civilian employees of the DoD with innovators and entrepreneurs outside of the DoD. This is accomplished by providing training and tools to these DoD “intrapreneurs” enabling them to find new ways to identify, frame, and solve problems as well as opening avenues to implement the solutions they create. Additionally, the programs executed create opportunities for external innovators and entrepreneurs to be exposed to DoD problems and demonstrate possible solutions.

NSIN, under its previous MD5 nomenclature, has been a Congressional interest program that has received funding in FY 2016 (\$5.000 million), FY 2017 (\$25.000 million), FY 2018 (\$25.500 million), and FY 2019 (\$15.000 million).

B. Accomplishments/Planned Programs (\$ in Millions)

| | | | | | |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total |
| Title: National Security Innovation Network (NSIN) | 0.000 | 0.000 | 25.000 | 0.000 | 25.000 |
| Description: NSIN carries out its mission via three portfolios of effort: Service, Collaboration, and Acceleration. The Service Portfolio is specifically designed to create new pathways to national security service for entrepreneurs and technologists that want to work with the DoD to solve problems in non-traditional ways. | | | | | |

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| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| <p>Collaboration provides problem-solving and new ideation spaces or Maker Centers for warfighters, academia and early-stage ventures to collectively identify novel applications and concepts to DoD problem sets. Acceleration programs identify opportunities inside the DoD that can be commercialized, or apply technology relevant to warfighter problem sets and advance the novel applications or solutions are created within the Collaboration Portfolio.</p> <p>FY 2019 Plans: N/A</p> <p>FY 2020 Base Plans: Funding in FY 2020 will be utilized to expand the number of regional hubs and partner universities within the National Security Innovation Network (formerly the MD5 National Security Technology Accelerator). Specifically, NSIN will focus on programs related to producing novel applications and solutions for end users and accelerating technology transfer and transition through university partners and the DoD Labs, including:</p> <ol style="list-style-type: none"> 1. Launching the National Security Academic Accelerator (NSA2) Network with more than 10 university partners and a goal to launch more than 30 dual-use ventures; 2. Establishing four new regional hubs and placement of three new Program Directors with key, Tier-1 university partners; 3. Completion of 10 Hackathons and delivery of Hacking for Defense (H4D) at up to 25 universities in Academic Year 2020-2021, resulting in more than 15 minimum viable products delivered to DoD end users; 4. Three (3) Catalyst program iterations that transition five (5) commercially viable technologies to DoD Major commands (MAJCOMS); 5. Close collaboration with the Defense Manufacturing Institutes to establish a national network of basic and advanced rapid prototyping facilities to increase commercialization of potential dual-use solutions. <p>FY 2020 OCO Plans: N/A</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement: The increase of \$25.000 million will fund three portfolios of effort: Service, Collaboration, and Acceleration designed to create new pathways to national security service to solve DoD problems in non-traditional ways.</p> | | | | | |
| Accomplishments/Planned Programs Subtotals | 0.000 | 0.000 | 25.000 | 0.000 | 25.000 |

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|--|---|---|

| | FY 2018 | FY 2019 |
|-------------------------------------|---------|---------|
| Congressional Add: N/A | 0.000 | 0.000 |
| FY 2018 Accomplishments: N/A | | |
| FY 2019 Plans: N/A | | |
| Congressional Adds Subtotals | 0.000 | 0.000 |

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

- Key performance indicator 1: Year over Year Growth of Entrants into the NSIN virtual Platform (Goal of >25%)
- Key performance indicator 2: Annual Savings from Non-Traditional Problem-Solving Methods (Goal of 10x NSIN Budget)
- Key performance indicator 3: Annual Solution Adoption Rate (Goal of >75%)
- Key performance indicator 4: Year over Year Growth for Technologies Transitioned from DoD Labs (goal of >25%)
- Key performance indicator 5: Annual Number of Dual-Use Ventures Launched with Follow-On Funding (Goal of >15)