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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Office of the Secretary Of Defense **Date:** February 2020

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 0603375D8Z I <i>Technology Innovation</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	84.720	25.856	30.000	27.709	-	27.709	25.735	34.088	41.295	42.528	Continuing	Continuing
<i>375: Technology Innovation</i>	84.720	25.856	30.000	27.709	-	27.709	25.735	34.088	41.295	42.528	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Department of Defense (DoD) has a long history of technological breakthroughs and innovations originating from within the Department. In order to sustain technological superiority, the Department must take advantage of the rapid evolution of emerging technologies that will be a source of battlefield advantage, when integrated with military systems and novel concepts of operation.

Leveraging innovative technologies from both defense and commercial sources, to include non-traditional sources such as startup companies, has the potential to rapidly address warfighter problem sets in areas where commercial innovation outstrips government investment in the same technology areas. This funding will be used to mature and demonstrate emerging technologies, such as the Department's Modernization Technology Areas, that contribute to the broader joint mission needs.

B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	33.068	60.000	68.000	-	68.000
Current President's Budget	25.856	30.000	27.709	-	27.709
Total Adjustments	-7.212	-30.000	-40.291	-	-40.291
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-30.000			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-6.000	-			
• SBIR/STTR Transfer	-1.207	-			
• Internal Realignment	-	-	-14.705	-	-14.705
• Reduction for Defense Wide Review	-	-	-24.982	-	-24.982
• Economic Assumption	-	-	-0.049	-	-0.049
• Other Adjustments	-0.005	-	-0.555	-	-0.555

Change Summary Explanation

In FY 2020, there is a congressional reduction of -\$30.000 million due to insufficient justification.

In FY 2021, internal realignment based on previous Congressional reductions.

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Appropriation/Budget Activity	R-1 Program Element (Number/Name)
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> / BA 3: <i>Advanced Technology Development (ATD)</i>	PE 0603375D8Z / <i>Technology Innovation</i>

Defense-Wide Review: The FY 2021 funding request was reduced by \$24.982 million during DWR to realign funds for higher priority DoD missions.

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Office of the Secretary Of Defense **Date:** February 2020

Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0603375D8Z / <i>Technology Innovation</i>				Project (Number/Name) 375 / <i>Technology Innovation</i>			
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
<i>375: Technology Innovation</i>	84.720	25.856	30.000	27.709	-	27.709	25.735	34.088	41.295	42.528	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program focuses on rapid innovation and demonstration with emerging technology to address priority warfighter problem sets and National Defense Strategy technology focus areas. By leveraging Service activities and establishing partnerships with other government agencies (OGAs) such as the Intelligence Community (IC) and the Department of Homeland Security, a wide variety of emerging military and commercial technologies are rapidly assessed for applicability to the National Defense Strategy technology focus areas and a broad spectrum of priority DoD problem sets. Enabling the warfighter to execute short duration pilots with these emerging technologies provides a cost effective way to leverage commercial investment for DoD purposes, sharing costs with OGA partners, informing warfighter requirements for follow-on acquisition through traditional DoD channels, and allowing other DoD R&D organizations to focus their resources on both the integration of commercial technologies showing promise in these warfighter pilots as well as on traditional R&D in technologies not well served by commercial start-up companies.

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

	FY 2019	FY 2020	FY 2021
Title: Technology Innovation	25.856	30.000	27.709
Description: The Program focuses rapid innovation and demonstration in emerging defense and commercial technology areas to address the National Defense Strategy technology focus areas and priority warfighter problem sets. FY2019 examples include funding of promising commercial advanced technology demonstration projects in the areas of biotechnology, quantum science, fully networked command, control, and communications, and space.			
FY 2020 Plans: Apply rapid innovation and demonstration by leveraging innovative technologies from both defense and commercial sources to address the National Defense Strategy technology focus areas, in alignment with the DoD technology modernization roadmaps.			
FY 2021 Plans: Further expand support across all National Defense Strategy technology focus in alignment with the DoD technology modernization roadmaps. Establish Service partners to facilitate transition of successful work program pilots into enterprise solutions for the warfighter, to include the following Biotechnology and Quantum efforts: (1) Advance emerging biotechnologies; and (2) Transition path for DARPA's atomic clock with enhanced stability to reach technology readiness level (TRL) 7 by FY 2025 and commercial availability by FY 2027.			
FY 2020 to FY 2021 Increase/Decrease Statement: Due to Congressional reductions, the focus for this program has changed in order to align with DoD high priority efforts.			
Accomplishments/Planned Programs Subtotals	25.856	30.000	27.709

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Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 0603375D8Z / <i>Technology Innovation</i>	Project (Number/Name) 375 / <i>Technology Innovation</i>
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C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A