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**Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0602002A / <i>Army Agile Innovation and Development-Applied Research</i>
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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	-	-	-	9.534	-	9.534	14.088	19.640	23.393	20.995	0.000	87.650
DC4: <i>Army Applied Innovation</i>	-	-	-	2.073	-	2.073	3.121	3.637	7.278	5.717	0.000	21.826
DC5: <i>Team Ignite</i>	-	-	-	7.461	-	7.461	8.843	9.769	10.189	10.913	0.000	47.175
DC6: <i>Sci &amp; Analysis for Autonomous Sys &amp; Counter-Auton*</i>	-	-	-	-	-	-	2.124	6.234	5.926	4.365	0.000	18.649

\*This project's R-2a exhibit has been suppressed due to funding not beginning until after FY 2023

**Note**

This is a new start in FY 2023.

In Fiscal Year 2023 (FY23), this Program Element is a new start.

**A. Mission Description and Budget Item Justification**

This Program Element (PE) funds the Army's goal of assessing and researching innovative solutions to achieve future force modernization. The Army is developing new ways of doing business to include strategic and "non-traditional" partnerships and working with traditional vendors in novel ways to allow for agile integration of leading-edge technology. Critical technologies that allow for technological superiority are increasingly dual-use or developed in academia-led partnerships that leverage cutting edge innovation. In an era of global competition, technological superiority requires agile and rapid innovation. Cross-cutting modernization initiatives leverage strategic partnerships foster an environment to bring knowledge and expertise to demonstrate breakthrough and innovative technologies that will benefit the warfighter. These collaborations bring new ways of doing business to assess and evaluate emerging technologies with high payoff potential to address current technology shortfalls. Leveraging other innovative mechanisms, to include accelerators, incubators, and other technology accelerants, to enhance innovation is part of the overall innovation strategy. Innovation includes not only hardware and physical products but also software, software development, artificial intelligence (AI) and machine learning, all as stand-alone initiatives and as part of broader innovation to programs and technology development. Oversight from a newly created Innovation Board will evaluate internal and external constraints to implementation on the basis of Army modernization needs, Army standards and resources to inform an optimal technology investment strategy.

Work in this program element is closely coordinated with program element 0603025A (Army Agile Innovation and Demonstration).

The cited work is consistent with the Under Secretary of Defense for Research and Engineering Priority focus areas and the Army Modernization Strategy.

Work is performed by the United States Army Futures Command.

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<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 2: Applied Research</i>	<b>R-1 Program Element (Number/Name)</b> PE 0602002A / <i>Army Agile Innovation and Development-Applied Research</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	0.000	0.000	0.000	-	0.000
Current President's Budget	0.000	0.000	9.534	-	9.534
Total Adjustments	0.000	0.000	9.534	-	9.534
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	9.534	-	9.534

**Change Summary Explanation**

In Fiscal Year 2023 (FY2023), this program element is a new start.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2023 Army										<b>Date:</b> April 2022		
<b>Appropriation/Budget Activity</b> 2040 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602002A / Army Agile Innovation and Development-Applied Research				<b>Project (Number/Name)</b> DC4 / Army Applied Innovation			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
DC4: Army Applied Innovation	-	-	-	2.073	-	2.073	3.121	3.637	7.278	5.717	0.000	21.826

**Note**

This is a new start in FY 2023.

In Fiscal Year (FY) 2023, this project is a new start.

**A. Mission Description and Budget Item Justification**

This project funds the Applied Research portion of the Army Innovation Plan, the Army's investment strategy to rapidly accelerate innovative solutions to challenging Warfighter problems. This project will provide the Army with the most advanced and cutting-edge solutions with the ability to adapt and integrate multi-disciplinary innovative technologies by bridging the interfaces between internal and external efforts for a holistic entry into the acquisition pipeline at the most appropriate milestone. This effort seeks to research, evaluate, and validate these technologies in support of cross-domain operations, with emphasis on open/modular systems architecture and digital thread/engineering, and provide a pathway for entry into the acquisition process.

This project is coordinated with Program Element 0603025A (Army Agile Innovation and Demonstration), Project DA3 (Army Advanced Innovation).

Army Senior Leadership approves Army innovation projects prior to budget year programming based on priority, opportunity, and return on investment for the American taxpayer- ensuring that innovations have a high potential for filling capability gaps and transitioning.

The cited work is consistent with the Under Secretary of Defense for Research and Engineering priority focus areas and the Army Modernization Strategy.

Work in this effort is performed by the United States (US) Army Futures Command.

Work in this Project supports all Army Modernization Priorities.

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

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Army Applied Innovation	-	-	2.073
<b>Description:</b> The Army seeks to research, evaluate, and validate technology that display unique and innovative potential in a cross-domain fashion. This effort will serve as funding to rapidly prepare disruptive and groundbreaking capabilities that fall outside of the normal acquisition pipeline.			
<b>FY 2023 Plans:</b>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Initiate a competitive process that selects technologies with a high promise of advancing and accelerating capabilities to be investigated in open systems and digital engineering architectures, prior to be transitioned to further Science and Technology efforts. The Army Innovation Program will accept multiple new efforts that support Army Modernization, to include cyber, Electronic Warfare, Sensors, Power and Energy, Artificial Intelligence and Autonomy, Communications, Position, Navigation and Timing, advancing Synthetic Training Environments; and Air and Ground Platform integration.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> In Fiscal Year (FY) 2023, this project is a new start.</p>				
<b>Accomplishments/Planned Programs Subtotals</b>		-	-	2.073
<b>C. Other Program Funding Summary (\$ in Millions)</b>				
N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b>				
N/A				

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<b>Appropriation/Budget Activity</b> 2040 / 2					<b>R-1 Program Element (Number/Name)</b> PE 0602002A / Army Agile Innovation and Development-Applied Research				<b>Project (Number/Name)</b> DC5 / Team Ignite			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
DC5: <i>Team Ignite</i>	-	-	-	7.461	-	7.461	8.843	9.769	10.189	10.913	0.000	47.175

**Note**

This is a new start in FY 2023.

This is a new start in Fiscal Year 2023.

**A. Mission Description and Budget Item Justification**

IGNITE is part of the multi-tiered Army Innovation Plan to investigate non-traditional and innovative technologies to rapidly develop the technology, delivering quick solutions for Army identified problems. IGNITE empowers individuals to create new approaches to ensure competitive advantage, identifies future warfighting concepts from recent scientific discoveries, ensures capability requirements are grounded in feasible technological advancements and uses data and analytics to build a common language across communities. The primary end state of IGNITE is an Army Modernization Enterprise that has institutionalized a new way of business where modernization processes are inherently collaborative across our diverse expertise, including S&T, conceptual, analytical, operational, experimental, requirements, and threat communities. This will allow decisive capabilities to be developed at a faster pace than our adversaries.

Work in this Project is performed by the United States Army Futures Command (AFC).

This effort is an FY23 New Start.

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

	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Team IGNITE	-	-	7.461
<b>Description:</b> The IGNITE philosophy emphasizes integration through numerous pathways and mechanisms. These include, but are not limited to, cross-organizational events, organizational offices, enduring cohorts, enabling processes, and Ignite innovators.			
<b>FY 2023 Plans:</b> Investigates Innovation, Collaboration, and Integration among multiple communities (S&T, conceptual, analytical, operational, experimental, requirements, and threat communities) with diverse expertise to support the Ignite Strategy. Design and develops plans to accelerate the development of an integrated technology capability with explicit plans for the operational metrics to guide and refine technical development. Develops (and educates workforce) on systematic processes to track risk against metrics and integrate these processes into DEVCOM led reviews. Develops and leads collaborative workshops to identify future concepts about ?what could be? for how the future Army fights, organizes, and equips. Conducts experiments to assess operational impact and identify innovative solutions for dynamic near peer threats. Validates modeling tools, simulation capabilities, and analytic			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
models to determine the operational value at early levels of idea maturity and directly link operational metrics and capabilities to technical metrics.				
<b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> This effort is an FY23 New Start.				
<b>Accomplishments/Planned Programs Subtotals</b>		-	-	7.461
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A				
<b>Remarks</b>				
<b>D. Acquisition Strategy</b> N/A				