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 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*

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	227.903	170.207	335.410	588.094	-	588.094	636.406	683.702	523.038	286.036	-	-
819: *Industrial Base Analysis and Sustainment*	227.903	166.457	327.410	588.094	-	588.094	636.406	683.702	523.038	286.036	-	-
821: *Microelectronics*	-	3.750	8.000	-	-	-	-	-	-	-	-	-

Note

New Start (Y/N): Y

A. Mission Description and Budget Item Justification

This program supports the Department's initiatives to Defend the Homeland, Build Sustainable and Long-Term Advantage, and Taking Care of People.

Industrial Base Analysis and Sustainment (IBAS) Support was established in accordance with 10 USC Sec 2508 Industrial Base Fund. The ability of the United States to maintain readiness, and to surge and sustain in response to an emergency, directly relates to the capacity, capabilities, and resiliency of our manufacturing and defense industrial base and supply chains. IBAS authorities and flexibility are key components to build the industrial capabilities needed to innovate, produce, and sustain the weapon systems for today and tomorrow.

The IBAS Program provides the Department with a unique capability to achieve the strategic aims of the 2022 National Defense Strategy, which calls for a strong, resilient, responsive and healthy U.S. Industrial Base (IB) that underpins current and future U.S. force readiness. This program is uniquely positioned to improve the U.S. Industrial Base's competitiveness and ability to respond to the Department's needs by applying focused investments to 1) monitor and assess the current state of the IB, 2) address critical issues in the IB relating to urgent operational needs, 3) address supply chain vulnerabilities, and 4) support efforts to expand the Industrial Base.

The IBAS program is one component of a broader integrated DoD investment strategy to build and strengthen the defense industrial base and secure U.S. supply chains. IBAS investments are used discretely and in tandem with other DoD investment programs to achieve DoD and national security goals.

Global supply chain disruptions have become more common, with recent events highlighting risks and vulnerabilities that undermine our national security. The February 24, 2022 report on Executive Order (E.O.) 14017, "America's Supply Chains", and the 2022 Industrial Base Capabilities (ICR) report, each outline strategic focus areas and enabling capabilities, their associated vulnerabilities, and provide recommendations to strengthen the defense industrial base.

The FY 2023 IBAS budget reflects the DoD's commitment to ensuring our supply chains can provide our warfighters with decisive advantage. This budget includes investments to respond to E.O. 14017 and ICR findings and recommendations, emerging and modernization priorities and technologies, and other defense requirements. This is the result of significant coordination for each strategic focus area via cross-functional teams (CFT). These CFTs developed an integrated and prioritized investment strategy to address the most pressing needs for each focus area, to include mapping to investment authorities. The FY 2023 IBAS budget reflects the outcome of the CFT recommendations, and has been coordinated to complement adjacent investments of related programs including the Defense Production Act

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 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*

(DPA) Title III, Manufacturing Technology (ManTech) program, and at the Military Service level. Accordingly, investments in the strategic focus areas addressed below will establish, sustain, and expand domestic capabilities and capacities to build more viable and resilient supply chains.

Management Process – To successfully execute the FY 2023 budget, the IBAS Program Office within the Office of the Assistant Secretary of Defense Industrial Base Policy (OASD(IBP)) will oversee the health of the IBAS portfolio and project codes. The IBAS Program Office coordinates with a Military Service or defense agency technical lead to develop and execute an acquisition strategy and implementation plans for each strategic focus area.

FY 2023 strategic focus areas that will be executed in IBAS Project Code P819 include workforce, critical materials and chemicals, castings and forgings, kinetic weapons, energy storage and batteries, biomanufacturing, and microelectronics. Descriptions of each focus area are included in the P819 R-2a.

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	172.145	58.189	0.000	-	0.000
Current President's Budget	170.207	335.410	588.094	-	588.094
Total Adjustments	-1.938	277.221	588.094	-	588.094
• Congressional General Reductions	-	-0.329			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	277.550			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.750	-			
• SBIR/STTR Transfer	-5.688	-			
• Adjustments to Budget Year	-	-	587.485	-	587.485
• Economic Assumptions	-	-	0.609	-	0.609

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: 819: *Industrial Base Analysis and Sustainment*		
Congressional Add: *Program Increase*	9.646	10.000
Congressional Add: *Active Matrix Organic Light Emitting Diode*	5.000	-
Congressional Add: *Advanced Armor Piercing Penetrator/ Risk Reduction for Tungsten Defense Products*	5.000	-
Congressional Add: *Advanced Manufacturing Workforce Development*	6.000	-
Congressional Add: *Advanced Nanomaterials Manufacturing / Metal-organic frameworks*	10.000	7.500
Congressional Add: *Automated textile manufacturing*	10.000	10.000
Congressional Add: *Industrial Skills*	3.500	10.000

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 I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607210D8Z *I Industrial Base Analysis and Sustainment Support*

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Congressional Add: *Interdisciplinary Center for Advanced Manufacturing Systems*	7.500	10.000
Congressional Add: *Freeze Dried Plasma*	10.000	10.000
Congressional Add: *Frequency Selective Limiters*	5.000	-
Congressional Add: *Lead-free Electronics*	10.000	7.500
Congressional Add: *Machine Tooling and Advanced Manufacturing*	20.000	20.000
Congressional Add: *Munitions Supply Chain Expansion*	2.000	-
Congressional Add: *Pilot Mask Technology*	10.000	5.000
Congressional Add: *Precision Optics Manufacturing*	4.000	4.000
Congressional Add: *Shape Memory Alloys (SMA)*	5.000	-
Congressional Add: *Submarine Workforce Development*	20.000	20.000
Congressional Add: *High Performance Weldable Armor*	5.000	-
Congressional Add: *Weldable Ultra Hard Armor*	10.000	3.000
Congressional Add: *Accelerated training in defense manufacturing*	-	5.000
Congressional Add: *Advanced Headborne Systems Manufacturing*	-	7.500
Congressional Add: *Carbon/carbon Industrial Base Enhancement*	-	6.000
Congressional Add: *Career and Technical Education Pilot*	-	10.000
Congressional Add: *Defense Supply Chain Enhancement*	-	10.000
Congressional Add: *Digital Engineering Enabled Workforce Development*	-	7.000
Congressional Add: *Digital Thread Manufacturing Demonstration*	-	8.000
Congressional Add: *Enhanced Digital Capabilities*	-	7.000
Congressional Add: *Heavy Rare Earth Elements Program*	-	80.000
Congressional Add: *Rare Earth Elements and Critical Minerals Recovery Technique Demonstration*	-	3.000
Congressional Add: *Rare Earth Separation Technologies*	-	4.000
Congressional Add: *Resilient Manufacturing Ecosystem*	-	2.500
Congressional Add: *Ruggedized Transceivers*	-	10.000
Congressional Add: *Systems Engineering Technician Education Initiative*	-	0.550

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Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Congressional Add Subtotals for Project: 819	157.646	277.550
Congressional Add Totals for all Projects	157.646	277.550

Change Summary Explanation

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

FY 2023 Adjustments to Budget Years reflects amount not included in the FY 2022 President's Budget request, and internal realignment of funds for DoD priorities, including the following: workforce initiatives, critical materials and chemicals, castings and forgings, kinetic weapons, energy storage and batteries, biomanufacturing, and microelectronics ecosystem.

P821 Microelectronics FY 2023 funding for the Defense Microelectronics Cross-Function Team effort transitions from Program Element 0607210D8 to Program Element 0604294D8Z Microelectronics under the Office of the Undersecretary of Defense for Research and Engineering (OUSD(R&E).

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense			Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	Project (Number/Name) 819 / *Industrial Base Analysis and Sustainment*	

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
819: *Industrial Base Analysis and Sustainment*	227.903	166.457	327.410	588.094	-	588.094	636.406	683.702	523.038	286.036	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Global supply chain disruptions have become more common, with recent events highlighting risks and vulnerabilities that undermine our national security. The February 24, 2022 report on Executive Order (E.O.) 14017, “America’s Supply Chains”, and the 2022 Industrial Base Capabilities (ICR) report each outline strategic focus areas and enabling capabilities, their associated vulnerabilities, and provide recommendations to strengthen the defense industrial base.

The FY 2023 IBAS budget reflects the DoD’s commitment to ensuring our supply chains can provide our warfighters with decisive advantage. This budget includes investments to respond to E.O. 14017 and ICR findings and recommendations, emerging and modernization priorities and technologies, and other defense requirements. This is the result of significant coordination for each strategic focus area via cross-functional teams (CFT). These CFTs developed an integrated and prioritized investment strategy to address the most pressing needs for each focus area, to include mapping to investment authorities. The FY 2023 IBAS budget reflects the outcome of the CFT recommendations and has been coordinated to complement adjacent investments of related programs including the Defense Production Act (DPA) Title III, Manufacturing Technology (ManTech) program, and at the Military Service level. Accordingly, investments in the following strategic focus areas will establish, sustain, and expand domestic capabilities and capacities to build more sustainable and resilient supply chains.

Workforce – the DoD relies on a skilled workforce to innovate, produce, and sustain our weapon systems. Decades of erosion across workforce development pipelines jeopardize and threaten our industrial base’s ability to remain competitive. Efforts will continue to focus on recruitment, training, and placing skilled workers in support of defense priority states and in support of priority defense programs. FY 2023's primary effort will be a major, multi-year, joint OSD-Navy endeavor focused on ensuring the health and capacity of the DoD’s submarine workforce.

Critical Materials and Chemicals - critical materials and critical chemicals are used in a broad range of DoD weapon systems. Like other industrial sectors such as microelectronics, there is a critical materials market concentration in China which makes U.S. economic and national security vulnerable to disruption. To mitigate risks, the DoD will pursue four lines of effort: 1) Develop and foster new sustainability standards for strategic and critical material intensive industries; 2) Expand sustainable domestic production and processing capacity, including non-traditional mining and recycling; 3) Strengthen U.S. stockpiles; 4) Work with allies and partner nations promoting sharing of technology, capability, and resources. FY 2023 primary efforts will continue prior year initiatives related to scaling domestic processing of Heavy Rare Earth Elements (HREE).

Kinetic Weapons – kinetic capabilities, including hypersonic weapons, are essential to deterring America’s adversaries, who continue their military buildups including their own hypersonics capability. Current supply chains are vulnerable to raw materials and chemicals shortages; fragile, foreign, and/or sole-source suppliers; and technical challenges of transitioning hypersonic capabilities into production. The DoD will launch efforts to: 1) Address supply chain vulnerabilities of the most critical

chemicals; 2) Update material specifications, including production and quality testing requirements; and 3) Foster sub-tier suppliers and competition in the hypersonic industrial base to enable affordable production. FY 2023 primary focus efforts will improve and expand the hypersonics industrial base.

Energy Storage and Batteries – Due to the small DoD market share and customized battery requirements the DoD is unable to fully leverage the large commercial investment in state of the art energy storage technology. The nearly 100% foreign battery supply chain limits the DoD's ability to field battery enabled weapons/platforms free of adversary supply chain control. To mitigate these risks, DoD is investing to develop domestic assured access to batteries through three focus areas: 1) Initiate studies to define the aggregate demand for energy storage and batteries across the DoD; 2) Pivot to commercial standards and batteries to the maximum extent possible; and 3) Establish internal DoD safety testing capacity for energy storage and batteries for future weapons systems. FY 2023 primary efforts will initiate deep dive DoD demand analysis and identify commercial sourcing synergies.

Castings and Forgings – machine tools and cast and forged parts are critical to the development, procurement, and sustainment of all major defense systems, and are found in 20 percent of the products representing the U.S. Gross Domestic Product. Continuous industry consolidation and offshoring since the 1960's have hollowed out domestic capability, reducing or eliminating competition and increasing our dependence on other nations, including China. To mitigate these risks, the DoD will: 1) Continue refinement of a cross-service casting and forging strategy to inform policy and investment decisions; 2) Conduct research activities to expand sub-tier supplier development and, to improve rapid designs and affordable and reliable production; and 3) Invest to modernize relevant organic industrial base capabilities. FY 2023 primary investments will initiate deep dive analysis to inform strategic investment strategies.

Flexible Biomanufacturing – biotechnology has the potential to transform the future battlefield and address key global challenges, but DoD lacks the domestic sourcing and production capabilities to rapidly manufacture critical bioproducts at industrial scale for operational use. The DoD has already taken measures to address some key gaps in the biomanufacturing pipeline, including the standup up of BioMADE, the Manufacturing Innovation Institute dedicated to fostering technological innovation in synthetic biology-enabled manufacturing from design to the manufacturing of non-medical products. Key challenges remain in the scale-up of domestic manufacturing capacity and the market-driven rigidity of existing biomanufacturing processes. To overcome these challenges, the DoD created the Distributed Manufacturing Enabled by Modular Bioindustrial & Reusable Assets (MEMBR). MEMBR is a bioindustrial manufacturing infrastructure investment program to pilot and commercially scale DoD molecules. MEMBR has begun investments to: 1) Increase industrial capacity by converting and modernizing existing production facilities and creating new ones; 2) Adopt modular biomanufacturing capabilities that are able to rapidly use and evaluate the efficacy of new processes; 3) Provide education and workforce development opportunities; and 4) Identify and foster integration of commercial bioindustrial products and precursors into DoD acquisition pathways. FY 2023 primary efforts will initiate modernization and adaptation of three existing production facilities to accommodate DoD requirements.

Microelectronics - components are the foundation of modern economy and military systems. Various vulnerabilities threaten the DoD's ability to source microelectronics needed to sustain programs of record. In order to prepare the Department for increased global economic and strategic, the DoD must take action to ensure access to the microelectronic components needed to sustain our defense programs and systems effectively and affordably. The Department also needs a better strategy to transition leading edge technology developed by both government and industry to DoD programs of record, to ensure the Department maintains a competitive edge. To respond to the threat and establish a secure and assured domestic supply chain, the DoD will pursue multiple lines of microelectronics efforts. Efforts included in IBAS are 1) Establishing domestic advanced packaging capabilities; 2) Establishing data repository to manage obsolescence; and 3) Establishing workforce efforts needed to design and make microelectronic components domestically.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Industrial Base Analysis and Sustainment (IBAS) Support	8.811	49.860	588.094

Description: IBAS currently focuses efforts and investments for all fiscal years in the categories listed below, continuing investments to mitigate supply chain risks and findings from Executive Order 14017, and on-going assessments for both traditional defense sectors and cross-cutting sectors.

FY 2022 Plans:

1. Workforce

Industrial Skills Development and Acceleration - The National Imperative for Industrial Skills (NIIS) initiative developed additional momentum in FY 2022 across the Workforce objectives described in R-2a section A above, capping a third straight year of upward investment growth with continued supportive congressional interest. Accomplishments across the initiative's 12 ongoing investment projects are detailed in the department's 160-page report entitled "Training of Skilled Technicians for the Defense Industrial Base: Pilot Program Strategy," delivered to the Senate Armed Services Committee in FY 2022. Also in FY 2022, a 13th NIIS project was awarded to establish a "High Velocity Training Center" supporting organic industrial workforce training needs of the U.S. Army Aviation and Missile Command located at Redstone Arsenal, Alabama. The project highlights the use of mobile, 'fleet-in' capabilities to address unmet demand in DoD's aerospace/aviation and manufacturing, logistics and distribution sectors. Training will certify and upskill existing employees; expand recruitment, particularly for underserved communities; and partner with local community colleges for follow-on learning after certification. New training certifications will be established for organic industrial base (OIB) needs including electricians, metrologists, armament welders, and others. The program will establish a 2-shift per training cohort schedule to certify 500 new technicians per year.

Workforce Strategy – the IBAS office spearheaded the establishment of a joint OUSD(A&S)- OUSD(R&E) led team, overseen by the department's Industrial Base Council, to develop the first-ever "DoD Defense Industrial Base Workforce Strategic Plan." The strategy describes how shifts in the landscape of the industrial and innovation workforce ecosystems of the nation have driven the DoD to recalibrate its traditional federal roles and responsibilities in this space. It positions the DoD to be more systematic, forward-leaning and participatory in addressing defense industrial base workforce risks and health. Similarly, the strategy encourages new public-private partnerships and adjusted risk-sharing arrangements.

2. Critical Chemicals and Minerals

Rare Earth Elements – Continued efforts to establish, sustain, and improve value-added manufacturing domestic rare earth capabilities and commercialize products. Primary focus is centered on the design and build of two complimentary HREE separation and processing lines in support of the DoD's efforts to address supply chain risks associated with the dependence on rare earth elements from foreign non-allied countries.

FY 2023 Plans:

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
1. Workforce Industrial Skills Development and Acceleration (National Imperative for Industrial Skills (NIIS) initiative: FY 2023 continues and expands NIIS multiyear efforts initiated in prior years, as addressed in the Workforce narrative in Section A, and in FY 2022 Accomplishments above. All 13 funded projects in the NIIS portfolio continue in FY 2023 at various planned programmatic stages, iteratively testing, validating and refining multiple elements or segments of the initiative's 'Industrial Skills Workforce Development Ecosystem Model. The intent is to produce increasing levels of real world system maturity, harmonization/integration and effectiveness as depicted in the model. For example, in FY 2023, the High Velocity Training Center project will shift from Phase 0 start-up activities into full-scale student training and workforce delivery to the OIB. Submarine Workforce: The most significant change to the National Imperative for Industrial Skills initiative FY 2023 portfolio is the introduction of a major, multi-year joint OSD-Navy endeavor focused on ensuring the health and capacity of the DoD's Submarine Industrial Base. IBAS, in partnership with the Navy submarine enterprise, will continue to invest in the industrial base's development of the necessary training and education programs. The objective is to accelerate the path to establishing at-scale regional training centers and other workforce pipeline delivery modes as needed to create sufficient capability to provide "ready to work" high skill technical tradespeople at the production levels needed to meet the nuclear Navy's submarine modernization requirements. Efforts will initially focus on seven priority states where key suppliers reside. Divestiture Pilot: To respond to new threats, the DoD needs to divest from old programs and build new capabilities. While necessary, divesting often creates long downtimes within the supply chain prior to the start of new work. These production gaps risk permanent loss of workers and capability needed to produce new programs. This effort will pilot regional projects to minimize program divestiture impacts. Efforts include 1) retrain and retain workforce for future production requirements, e.g. shift from aluminum to steel welding; and 2) capitalize and qualify as new suppliers for other programs. Initial efforts will focus on transition from aluminum construction to supporting Program Executive Office Strategic Submarines' Columbia Class Program and Program Executive Office Attack Submarines' Virginia Class Program. 2. Critical Chemicals and Materials Sector: Heavy Rare Earth: continue efforts to establish, sustain, and improve value-added manufacturing domestic rare earth capabilities and commercialize products. Continue the design and build of two domestic HREE processing lines in support of the DoD's efforts to address supply chain risks associated with the dependence on rare earth elements from foreign non-allied countries. Other Material Sectors – expand, sustain, and improve the value-added domestic manufacturing capabilities for critical materials such as boron and carbon fibers, magnesium, and tantalum for defense applications.			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Chemical Energetics: launch efforts to sustain and expand domestic capacities for priority chemicals in support of the DoD's energetics and munitions supply chain. 3. Castings and Forgings and Machine Tools Castings and Forgings Analysis: execute a comprehensive assessment of the casting and forging sector with emphasis on comparing DoD demand with industry capabilities. The results of this assessment inform ongoing development and refinement of a cross-Service casting and forging strategy to inform policy and investment decisions. 4. Energy Storage and Batteries: initiate a series of studies to assess and analyze 1) DoD consumption and purchasing patterns; 2) domestic commercial sources of supply and their capability and capacity to support DoD needs; and 3) domestic testing facilities and capabilities for future acquisition requirements. 5. Kinetic Weapons Hypersonics: industrial base projects to improve manufacturing and expand capacity for hypersonics programs in coordination with other OSD and Military Service organizations. Efforts will increase capacity of existing suppliers, establish second sources, and address workforce challenges. 6. Emerging Technology Flexible Biomanufacturing: investments to support the expansion of the domestic bioindustrial manufacturing base to include flexible and modular production assets to deliver critical biomaterials and precursors at necessary scale to support DoD operational needs. Initiate: three flexible industrial scale facilities for an estimated five DoD-relevant molecules; five to six new-build flexible pilot scale facilities to rapidly prototype, test, and evaluate an estimated 20 additional molecules relevant to DoD and the bioeconomy; and one first-of-its-kind, domestic, modular biomanufacturing center to enable prototyping and some commercial-scale production of an estimated five DoD-relevant molecules and rapid configuration to advance process optimization and deployable capabilities. 7. Microelectronics To respond to the threat and establish a secure and assured domestic supply chain, the DoD will pursue multiple lines of microelectronics efforts. Efforts include 1) Establishing domestic advanced packaging capabilities; 2) Establishing data repository to manage obsolescence; and 3) Establishing workforce efforts needed to design and make microelectronic components domestically. FY 2023 efforts will focus on:			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Microelectronics Secure Packaging: Packaging is a critical stage of the microelectronics supply chain of DoD systems from both a functionality and a security perspective. Packaging finalizes the contents and therefore the integrity of the device. An ever increasing amount of the Size, Weight, Power and Cost (SWAP-C) improvements realized at the system level are now achieved through packaging technology advancements. IBAS will continue efforts to establish a state-of-the-art on-shore secure packaging ecosystem, develop security solutions, and develop technology demonstrators needed for transition. Enterprise Electronic Parts Management System (EEPMS): EEPMS is a DoD-wide microelectronics parts management tool utilized at the program office level, enabling insight into supply chains and lifecycle management of microelectronics enterprise wide. This capability will grant visibility into the supply chain, enable better supply chain risk management, allow aggregation of demand, improve purchasing power, enable collaborative solutions to obsolescence and other parts related issues, reduce the risk of counterfeit parts, and enable more DoD wide design modernization. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** P819 IBAS Baseline net increase of $538 million includes: reduction for the one-time FY 2022 increase of $41.000 for Heavy Rare Earth Elements; FY 2023 increases totaling $497 million reflecting OSD internal realignment of funds for DoD priorities, including the following. Workforce initiatives, Defense Advanced Battery Supply Chain, Castings and Forgings Supply Chain, Critical Chemicals, Hypersonic Weapons Components; Distributed Manufacturing Enabled by Modular Bioindustrial and Reusable Assets; and Microelectronics efforts.			
Accomplishments/Planned Programs Subtotals	8.811	49.860	588.094

	FY 2021	FY 2022
Congressional Add: Program Increase ***FY 2021 Accomplishments:*** Apply to supply chain analysis in multiple sectors including supply chain resiliency, and additional workforce development efforts. Offset to SBIR/STTR taxes applicable to Congressional Add total of $163.000 was $5,354 ***FY 2022 Plans:*** Apply to supply chain analysis in multiple sectors including supply chain resiliency, and additional workforce development efforts. Possible partial offset to SBIR/STTR taxes applicable to Congressional Add totals.	9.646	10.000
Congressional Add: Active Matrix Organic Light Emitting Diode ***FY 2021 Accomplishments:*** Sole Source - Improve and stabilize the single domestic source of organic light emitting diode manufacturing which supports numerous DoD combat platforms.	5.000	-
Congressional Add: Advanced Armor Piercing Penetrator/ Risk Reduction for Tungsten Defense Products	5.000	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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	FY 2021	FY 2022
FY 2021 Accomplishments: This initiative enhanced and optimized the manufacturing process of a tungsten carbide component while simultaneously increasing the capacity of parts per year to meet the Army's minimum forecasted requirements.		
Congressional Add: Advanced Manufacturing Workforce Development ***FY 2021 Accomplishments:*** National Imperative for Industrial Skills (NIIS) - Accelerate production of skilled technicians to address knowledge and skills gaps in metals additive manufacturing and its use to enable more innovative product design and production.	6.000	-
Congressional Add: Advanced Nanomaterials Manufacturing / Metal-organic frameworks ***FY 2021 Accomplishments:*** Expand Supply Chain - No domestic capability exists for mature metal organic frameworks compound to meet soldier chemical, biological, radiological, and nuclear filter requirements. Funds will establish domestic capability for to incorporate into M61 filters. ***FY 2022 Plans:*** Expand Supply Chain - No domestic capability exists for mature metal organic frameworks compound to meet soldier chemical, biological, radiological, and nuclear filter requirements. Funds will establish domestic capability for to incorporate into M61 filters.	10.000	7.500
Congressional Add: Automated textile manufacturing ***FY 2021 Accomplishments:*** Established partnership to prototype and implement automated manufacturing processes for advanced textiles needed for defense use and develop associated workforce curricula and training programs needed for successful industry adoption and use. ***FY 2022 Plans:*** Established partnership to prototype and implement automated manufacturing processes for advanced textiles needed for defense use and develop associated workforce curricula and training programs needed for successful industry adoption and use.	10.000	10.000
Congressional Add: Industrial Skills ***FY 2021 Accomplishments:*** National Imperative for Industrial Skills (NIIS) - Assess requirements, expand recruitment, expand and accelerate training in key sectors as needed. ***FY 2022 Plans:*** National Imperative for Industrial Skills (NIIS) - Assess requirements, expand recruitment, expand and accelerate training in key sectors as needed.	3.500	10.000
Congressional Add: Interdisciplinary Center for Advanced Manufacturing Systems	7.500	10.000

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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	FY 2021	FY 2022
FY 2021 Accomplishments: Lower the barriers for entry to small and medium manufacturers to adopt manufacturing capabilities including 5-axis, additive, digital and Internet of Things (IOT) 4.0 capabilities ***FY 2022 Plans:*** Lower the barriers for entry to small and medium manufacturers to adopt manufacturing capabilities including 5-axis, additive, digital and Internet of Things (IOT) 4.0 capabilities		
Congressional Add: Freeze Dried Plasma ***FY 2021 Accomplishments:*** Freeze-dried medical products with greater longevity would increase the opportunity for injured warfighters operating in austere environments to receive transfusions sooner in the process. To optimize transfusion therapy on the battlefield far forward, additional development of manufacturing technology must be done to enable production of freeze-dried pathogen-inactivated plasma, cryoprecipitate, and cryo-depleted plasma, all of which can be used for immediate treatment of wounded service members at the point of injury. ***FY 2022 Plans:*** Freeze-dried medical products with greater longevity would increase the opportunity for injured warfighters operating in austere environments to receive transfusions sooner in the process. To optimize transfusion therapy on the battlefield far forward, additional development of manufacturing technology must be done to enable production of freeze-dried pathogen-inactivated plasma, cryoprecipitate, and cryo-depleted plasma, all of which can be used for immediate treatment of wounded service members at the point of injury.	10.000	10.000
Congressional Add: Frequency Selective Limiters ***FY 2021 Accomplishments:*** Expand Defense Industrial Base - Frequency Selective Limiters (FSL) are used to strengthen electronic warfare systems against electromagnetic interference attacks. Current production rates of the substrate Gadolinium Gallium Garget (GGG) used to grow the Yttrium Iron Garnet films are insufficient to meet DoD requirements. Effort will significantly expand capacity to meet requirements.	5.000	-
Congressional Add: Lead-free Electronics ***FY 2021 Accomplishments:*** The 2006 European Union's restriction on using lead solder in electronics caused 99 percent of electronics suppliers to switch to tin-based solders for electronics circuit boards and assemblies. Tin-based solders are unable to withstand military operational requirements, resulting in reliability and performance deficiencies. This effort developed alternative solder alloys and delivered a solder performance specification, a DoD solder users' handbook, and an implementation roadmap that can accelerate the transition to lead-free electronics for defense systems. ***FY 2022 Plans:*** Tin-based solders are unable to withstand military operational requirements, resulting in reliability and performance deficiencies. This effort developed alternative solder alloys and delivered a solder	10.000	7.500

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense		Date: April 2022
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	**Project (Number/Name)** 819 / *Industrial Base Analysis and Sustainment*

	FY 2021	FY 2022
performance specification, a DoD solder users' handbook, and an implementation roadmap that can accelerate the transition to lead-free electronics for defense systems.		
Congressional Add: Machine Tooling and Advanced Manufacturing ***FY 2021 Accomplishments:*** Machine Tools Component: Executive Order (EO) 13806 study results found critical and continuing erosions across the domestic machine tool industry. In response, this effort established a DoD partnership with Department of Energy (DoE) Oak Ridge National Lab (ORNL) called “America’s Cutting Edge (ACE).” ACE applies the robust functional capacity of the Manufacturing Demonstration Facility (MDF) as a Hub for a public-private partnership that can leverage an existing $1.5 billion DoE Research and Development (R&D) Partnership to restore U.S. machine tool prominence. Workforce Component: Accelerate workers into and through training and development pipelines to meet requirements. ***FY 2022 Plans:*** This effort established a DoD partnership with Department of Energy (DoE) Oak Ridge National Lab (ORNL) called “America’s Cutting Edge (ACE).” ACE applies the robust functional capacity of the Manufacturing Demonstration Facility (MDF) as a Hub for a public-private partnership that can leverage an existing $1.5 billion DoE Research and Development (R&D) Partnership to restore U.S. machine tool prominence. Workforce Component: Accelerate workers into and through training and development pipelines to meet requirements.	20.000	20.000
Congressional Add: Munitions Supply Chain Expansion ***FY 2021 Accomplishments:*** Establish Domestic Capability - support F35A 25mm round production to be moved from Switzerland to Camden, Arkansas.	2.000	-
Congressional Add: Pilot Mask Technology ***FY 2021 Accomplishments:*** Sustain life support supply chains for pilot masks - contracted due to limited investment for pilot masks and related technology. Today's aircraft have surpassed older, obsolete technology. ***FY 2022 Plans:*** Sustain life support supply chains for pilot masks - contracted due to limited investment for pilot masks and related technology. Today's aircraft have surpassed older, obsolete technology.	10.000	5.000
Congressional Add: Precision Optics Manufacturing	4.000	4.000

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	FY 2021	FY 2022
FY 2021 Accomplishments: Precision Optics are used in almost every DoD platform but the collapse of the commercial optics community and decades of decreased DoD investment has endangered domestic capability for skilled workers and stable suppliers. Precision Optics Manufacturing provides a multi-prong approach to improve industrial base resilience and expands workforce development programs. ***FY 2022 Plans:*** Precision Optics are used in almost every DoD platform but the collapse of the commercial optics community and decades of decreased DoD investment has endangered domestic capability for skilled workers and stable suppliers. Precision Optics Manufacturing provides a multi-prong approach to improve industrial base resilience and expands workforce development programs.		
Congressional Add: Shape Memory Alloys (SMA) ***FY 2021 Accomplishments:*** Multi-year effort that builds on previous “America’s Cutting Edge (ACE).” work in hybrid processes. Develop the materials and manufacturing processes to rapidly manufacture complex SMA geometries.	5.000	-
Congressional Add: Submarine Workforce Development ***FY 2021 Accomplishments:*** Public private partnership with states mitigating workforce shortfalls within the submarine supply chain. Established partnership to identify workforce needs through industry champions and senior executives who have decision-making authority and are passionate about the submarine industrial sector. ***FY 2022 Plans:*** Public private partnership with states mitigating workforce shortfalls within the submarine supply chain. Established partnership to identify workforce needs through industry champions and senior executives who have decision-making authority and are passionate about the submarine industrial sector.	20.000	20.000
Congressional Add: High Performance Weldable Armor ***FY 2021 Accomplishments:*** Expand ground vehicle light weight armor supply chain. Develop full-scale manufacturing process for producing an ultra-hard armor that is weldable.	5.000	-
Congressional Add: Weldable Ultra Hard Armor ***FY 2021 Accomplishments:*** Expand ground vehicle light weight armor supply chain. Develop full-scale manufacturing process for producing an ultra-hard armor that is weldable. ***FY 2022 Plans:*** Expand ground vehicle light weight armor supply chain. Develop full-scale manufacturing process for producing an ultra-hard armor that is weldable.	10.000	3.000
Congressional Add: Accelerated training in defense manufacturing	-	5.000

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	FY 2021	FY 2022
FY 2022 Plans: Improve the nation's capacity to produce and deliver workers with industrial skills to meet defense technology, acquisition, and operational needs through the demonstration of the potential of the ADTM training program that cuts training time up to 75 percent and can be the replicable model training program for a national network of regional training centers serving the Defense Industrial Base.		
Congressional Add: Advanced Headborne Systems Manufacturing ***FY 2022 Plans:*** Develop industrial base capability and capacity related to advanced headborne systems for military applications.	-	7.500
Congressional Add: Carbon/carbon Industrial Base Enhancement ***FY 2022 Plans:*** Development and expansion of the carbon-carbon manufacturing ecosystem for high temperature applications.	-	6.000
Congressional Add: Career and Technical Education Pilot ***FY 2022 Plans:*** Career and Technical Education Pilot	-	10.000
Congressional Add: Defense Supply Chain Enhancement ***FY 2022 Plans:*** Defense Supply Chain Enhancement	-	10.000
Congressional Add: Digital Engineering Enabled Workforce Development ***FY 2022 Plans:*** Develop and deploy digital engineering centric academic programs to support enhanced digital manufacturing skills and talent development for the defense industrial base.	-	7.000
Congressional Add: Digital Thread Manufacturing Demonstration ***FY 2022 Plans:*** Digital Thread Manufacturing Demonstration	-	8.000
Congressional Add: Enhanced Digital Capabilities ***FY 2022 Plans:*** Develop and deploy digital engineering centric academic programs to support enhanced digital manufacturing skills and talent development for the defense industrial base.	-	7.000
Congressional Add: Heavy Rare Earth Elements Program ***FY 2022 Plans:*** Efforts to establish, sustain, and improve value-added manufacturing domestic rare earth capabilities and commercialize products. Continue the design and build of two domestic HREE processing lines	-	80.000

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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	FY 2021	FY 2022
in support of the DoD's efforts to address supply chain risks associated with the dependence on rare earth elements from foreign non-allied countries.		
Congressional Add: Rare Earth Elements and Critical Minerals Recovery Technique Demonstration ***FY 2022 Plans:*** Development and demonstration of industrial scale processes related to recovering rare earth elements from mining byproducts.	-	3.000
Congressional Add: Rare Earth Separation Technologies ***FY 2022 Plans:*** Development and demonstration of industrial scale processes related to separating rare earth elements from raw ore and/or end products through recycling.	-	4.000
Congressional Add: Resilient Manufacturing Ecosystem ***FY 2022 Plans:*** Deployment of a micro-defense additive manufacturing ecosystem focused on transitioning materials, processes, equipment and people into a production environment.	-	2.500
Congressional Add: Ruggedized Transceivers ***FY 2022 Plans:*** Establish a reliable domestic supply chain for fiber optic transceivers capable of supporting current and future DoD program demands.	-	10.000
Congressional Add: Systems Engineering Technician Education Initiative ***FY 2022 Plans:*** Advance training in digital engineering and manufacturing methods and processes through the creation of a 2-year degree in Systems Engineering Technology.	-	0.550
Congressional Adds Subtotals	157.646	277.550

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

NA

D. Acquisition Strategy

NA

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Office of the Secretary Of Defense			Date: April 2022
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IBAS Baseline Program Efforts - Prior Years	C/Various	various : various	190.724	-		-		-		-		-	-	-	-
Workforce Initiatives	C/FFP	SE New Eng Def Ind Assoc; Senedia; Auburn Univ; TX A&M; Americom; RD Solutions; Inst Advanced Learning; VT Tech Coll; Aeromarck; IACMI; BG Workforce Solutions; 202 Group; Poplicus; Productive Res : Multiple States	-	47.028	Dec 2021	6.105	Mar 2022	234.737	Jun 2023	-		234.737	-	-	-
Heavy Rare Earth Elements Supply Chain Resiliency	C/FFP	MP Mine Operations LLC; other TBD : CA	5.363	-		41.000	Jun 2022	-		-		-	-	-	-
Technical Initiatives Awarded (excluding HREE)	C/FFP	Systems Innovation;Ultra-Met; Next Def Solutions; Partnership Assured Electronics; Nat Security Tech Accel; Global Tungsten : Multiple States	-	32.446	Dec 2021	-		-		-		-	-	-	-
Technical Issues - pending award (excluding HREE)	C/FFP	TBD : TBD	-	47.059	Jun 2022	-		344.328	Jun 2023	-		344.328	-	-	-
Advanced Machine Tools (ACE)	FFRDC	Oakridge National Laboratories : Oakridge, TN	13.693	15.974	May 2021	-		-		-		-	-	-	-
Shape Memory Alloys	FFRDC	Oakridge National Laboratory : Oakridge, TN	-	4.836	May 2021	-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Services' Project Management Support and Technical Project Efforts (multiple efforts)	MIPR	multiple/various : multiple/various	1.747	5.497	Jun 2021	-		2.479	Jun 2022	-		2.479	-	-	-
Congressional Adds FY22 - all projects pending planning and contract actions	C/TBD	TBD : TBD	-	-		277.550	Mar 2023	-		-		-	-	-	-
		Subtotal	211.527	152.840		324.655		581.544		-		581.544	-	-	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contracting fees and support services various Gov	MIPR	various : various	0.560	4.354	Mar 2021	-		-		-		-	-	-	-
Joint Army NASA Air Force (JANNAF) Executive Committee Support	C/FFP	Johns Hopkins : MD	0.505	0.123	Sep 2021	0.260	Sep 2022	0.265	Sep 2023	-		0.265	-	-	-
ODASD(Industrial Policy) SETA Support	C/IDIQ	SPA & LMI : VA	-	2.500	Apr 2021	-		-		-		-	-	-	-
		Subtotal	1.065	6.977		0.260		0.265		-		0.265	-	-	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OSD SETA Support	Various	Frontier Technologies Inc : VA	15.311	3.628	Sep 2020	1.500	Nov 2021	5.271	Nov 2022	-		5.271	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Army/Navy Program Management	MIPR	DEVCOM CBC, NSWC Crane, PEO Stri : IL/IN/FL	-	3.012	Feb 2021	0.995	Dec 2021	1.014	Dec 2022	-		1.014	-	-	-
		Subtotal	15.311	6.640		2.495		6.285		-		6.285	-	-	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	227.903	166.457		327.410		588.094		-		588.094	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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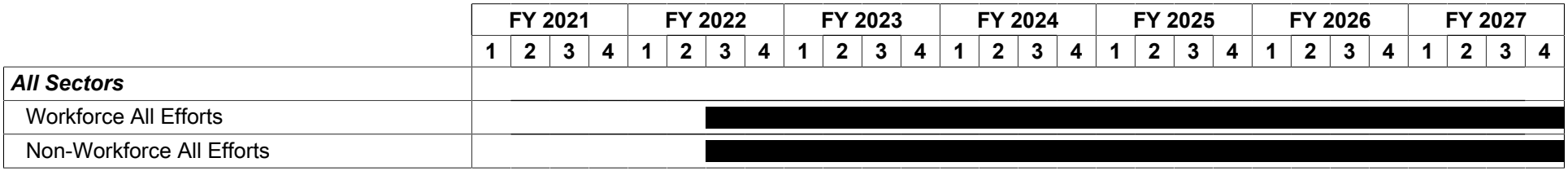

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
All Sectors				
Workforce All Efforts	3	2022	4	2027
Non-Workforce All Efforts	3	2022	4	2027

Exhibit R-2A, RDT&E Project Justification: PB 2023 Office of the Secretary Of Defense			Date: April 2022
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0607210D8Z / *Industrial Base Analysis and Sustainment Support*	Project (Number/Name) 821 / *Microelectronics*	

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
821: *Microelectronics*	-	3.750	8.000	-	-	-	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The FY 2023 IBAS budget reflects the DoDs commitment to ensuring our supply chains can supply our warfighters with decisive advantage and includes investments to respond to E.O. 14017 and ICR findings and recommendations for the strategic and enabling focus areas, as well as investments needed for emerging modernization priorities and technologies and other defense requirements.

This is the result of significant coordination for each strategic focus area via cross-functional teams (CFT). These CFTs developed an integrated and prioritized investment strategy to address the most pressing needs for each focus area, to include mapping to investment authorities. The FY 2023 IBAS budget reflects the outcome of the CFT recommendations and has been coordinated to complement adjacent investments of related programs including the Defense Production Act (DPA) Title III, Manufacturing Technology (ManTech) program, and at the Service level. Accordingly, investments in the following strategic focus areas will establish, sustain, and expand domestic capabilities and capacities to build more sustainable and resilient

Microelectronics components are the foundation of modern military systems. The Department of Defense (DoD) is exposed to various vulnerabilities that threaten the ability to source microelectronics needed to sustain programs of record. In order to prepare the Department for Great Power Competition, the Department must take action to ensure access to the microelectronic components needed to sustain our defense programs and systems effectively and affordably. The Department also needs a better strategy to transition leading edge technology developed by both government and industry to DoD programs of record, to ensure the Department maintains a competitive edge.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: Microelectronics Cross Functional Team	3.750	8.000	-
Description: The Cross-Functional Team (CFT) was established effective January 2021 to develop a DoD strategy, implementation, and transition plan to increase efficiency and minimize vulnerabilities within the Department's microelectronic supply chain, strengthening the domestic microelectronics Industrial Base and efforts to cost-effectively modernize and sustain DoD systems.			
FY 2022 Plans: The CFT will continue to develop the DoD strategy, and develop a roadmap to execute, which includes funding, policy, and legislation to ensure the strategy is successfully executed.			
FY 2022 to FY 2023 Increase/Decrease Statement:			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Decrease of $8.0M from FY 2022 to FY 2023 reflects transition of Microelectronics funding to Program Element 0604294D8Z Microelectronics under OUSD(R&E).			
Accomplishments/Planned Programs Subtotals	3.750	8.000	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Office of the Secretary Of Defense			Date: April 2022
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Microelectronics Studies, Strategic Initiatives, and Policy Assessments	C/FFP	CTC Aero, : Port Jefferson, NY	-	1.818		3.220	Dec 2021	-		-		-	-	-	-
Microelectronics Study	FFRDC	Institute for Defense Analysis : VA	-	-		0.500	Jan 2022	-		-		-	-	-	-
		Subtotal	-	1.818		3.720		-		-		-	-	-	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Reimburse Program Management Support from Various DoD Organizations	MIPR	Various : Various	-	0.668	Jul 2021	1.469	Dec 2021	-		-		-	-	-	-
SETA Program Management Support via FFRDC	FFRDC	Aerospace : CA	-	0.400	Mar 2021	0.870	Dec 2021	-		-		-	-	-	-
SETA Program Management Support Contract	C/CPFF	Various : Various	-	0.829	Jun 2021	1.590	Feb 2022	-		-		-	-	-	-
Expenses, Building Rent & Pentagon Force Protection Services	MIPR	GSA : VA	-	0.035	Oct 2020	0.351	Nov 2021	-		-		-	-	-	-
		Subtotal	-	1.932		4.280		-		-		-	-	-	N/A

	Prior Years	FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.750		8.000		-		-		-	-	-	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Microelectronics																												
Defense Microelectronics Cross-Functional Team					[redacted]																							

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Office of the Secretary Of Defense		Date: April 2022
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Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Microelectronics				
Defense Microelectronics Cross-Functional Team	1	2022	4	2023