Recommendation 37: Implement a defensewide capability portfolio framework that provides an enterprise view of existing and planned capability, to ensure delivery of integrated and innovative solutions to meet strategic objectives.

Problem

DoD's separate requirements, budgets, and acquisition decision-making processes fail to enable an enterprisewide view of existing and planned capabilities across Military Services and Defense Agencies to support timely and informed resource allocation decisions. The disjointed systems that make up the defense acquisition DSS (*big A acquisition* depicted in Figure 2-4), is one of the major inhibitors to achieving timeliness, flexibility, agility, and innovation.¹ The second major inhibitor is lack of a DoD-wide capability view and awareness to inform resource allocation decisions at all levels.

The friction and lack of connectivity among the three systems can impede rapid response to priority needs and timely delivery of material solutions.



Figure 2-4. Defense Acquisition Decision Support Systems (DSS – Big A Acquisition)

¹ Section 809 Panel, Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3, 30–43 (2018).

Background

DSS consists of three interrelated systems, with extensive, complex, and centralized decision-making processes driven by different timelines and system owners (see Figure 1-5).²

- The requirements system, known at the enterprise level as JCIDS, is administered by the Joint Staff and governed by the Chairman of the JCS Instruction (CJCSI) 5123.01H.
- The resourcing system, known as the PPBE system, is administered by the Director of Cost Assessment and Program Evaluation (D/CAPE) and the DoD Comptroller, and governed by DoDD 7045.14.
- DAS, is administered by acquisition personnel pursuant to guidance promulgated by the USD[A&S], including DoDD 5000.01 and DoDI 5000.02.



Figure 2-5. Description and Guidance for the DSS

Integrated Reviews Would Include Information from the Requirements, Acquisition, and Budget Communities

Linkages between the DSS sub-systems are not sufficiently defined to enable the success of acquisition programs

Each of these systems is initiated by inputs at the Military Services working level and includes a series of hierarchical reviews at the Military Service and enterprise levels. The senior enterprise-level decision-making body for requirements is the Joint Requirements Oversight Council (JROC), and for resources is the Deputy Secretary's Management Action Group (DMAG). Before the devolution of acquisition authority over the last 2 years, the Defense Acquisition Board (DAB) and the Under

² Ibid.

Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) played parallel roles in the acquisition decision-making process.

The initiation and progress of an MDAP require successful navigation of all three systems. For example, an MDAP cannot be initiated without the development of an initial capabilities document (ICD) through the requirements process, an MDA through the acquisition process, and funding delivery through the PPBE process. Similarly, a substantial change in requirements for an ongoing program is likely to require separate approvals through the requirements chain, the resourcing chain, and the acquisition chain.

For DSS to be responsive, the individual PM must coordinate and synchronize the activities to deliver warfighter capabilities. Because these processes are stove-piped and have separate decision makers and timelines, they are often out of synch. The result can be substantial delays and even stop-go-stop sequences based on inconsistent decisions that inhibit rapid response to priority needs and timely delivery of material solutions, as evidenced by late capability deliveries, cost overruns, and deteriorating technical dominance.

DoD has tried to coordinate the three processes using integrated product teams and to provide for cross-functional membership on decision-making entities (for example, the designation of the Under Secretary of Defense (AT&L) (USD[AT&L]) as a statutory advisor to JROC and the designation of the Vice Chairman of the JCS (VCJCS) as a DAB member. Because requirements, budget, and acquisition officials exert the greatest control when they stay within their own stovepipes, efforts to coordinate the three processes have been less successful than hoped, and decision-making has remained largely a sequential process.

In another effort to overcome DoD's stove-piped decision-making structure and better coordinate the three acquisition components, DoDD 7045.20 (promulgated in 2008), called for the establishment of capability portfolio managers (CPMs) with military and civilian coleads. The directive expressly provided that CPMs "have no independent decision-making authority, shall not infringe on any existing statutory or regulatory authorities, and shall work within established coordination processes." Because of these limitations, the portfolio approach quickly proved to be unenforceable, and although the directive is still in effect, it has had no discernible effect on the defense acquisition DSS processes.

The utility and power of portfolio management constructs has been used to help inform investment decision makers in the Army's PEO Ground Combat Systems (GCS). PEO GCS, teaming with Sandia National Laboratories, adopted a portfolio management approach to optimally invest in ground combat modernization over a 25- to 35-year timeframe. Through tightly knit, cross-functional stakeholder collaboration and use of decision analysis tools (Capability Portfolio Analysis Tool [CPAT]), the team was able to provide decision makers with key alternatives and scenarios to "help shape decisions to continue modernization of the \$10 [billion] Stryker family of vehicles (originally slated for cancellation) and to strategically reallocate over \$20 [billion] to existing modernization programs by not pursuing the Ground Combat Vehicle program as originally envisioned."³ Ultimately,

³ Scott J. Davis et al., "Maximizing the US Army's Future Contribution to Global Security Using the Capability Portfolio Analysis Tool (CPAT)," *Informs Journal on Applied Analytics*, 46, no. 1 (2016): 91-108, <u>https://doi.org/10.1287/inte.2015.0824</u>.

the Army estimated the decisions amounted to more than \$5 billion in cost avoidance and 30 percent greater fleet performance per dollar spent.⁴

In the *Volume 2 Report,* the Section 809 Panel concluded that structural change—from program-centric management to a more robust, multitiered portfolio management system at the execution and enterprise level—is needed to reduce the current organization's time and information challenges created by the centralized command structure and provide greater agility in the requirements, resourcing, and acquisition processes. There are four key elements of this proposed shift to a portfolio management framework:

- Replacing the traditional PEO role with that of the PAE, as described earlier in Recommendation 36.
- Establishing Enterprise Capablity Portfolios (ECPs) with civilian and military coleads to conduct cross-cutting analysis and to identify needed capabilities and gaps in such capabilities.
- Improving the defense sustainment enterprise, including developing SPBs to improve sustainment planning and execution.
- Improving the current requirements process governed by JCIDS with a management structure that allows for tradeoffs within the multi-tiered portfolio structure.

Discussion

At the enterprise level, the proposed portfolio management approach has four major features, each of which would represent a substantial improvement in the operation of the defense acquisition DSS:

- The capability portfolio approach would enable DoD, when making capital investment and sustainment decisions, to break out of the current, program-centric and process-focused approach across the DSS and consider instead capabilities and desired outcomes for those key decisions.
- The capability portfolio approach, if resourced with a stable funding source through the Undersecretary of Defense (Research and Engineering) (USD[R&E]), would enable DoD to employ a more agile and coordinated approach to innovation, experimentation, demonstration, and rapid prototyping.
- As requirements, budget, and acquisition decision authority are delegated in the Military Services and Defense Agencies to empowered subordinates, the portfolio approach would bring together DoD's decision processes, establishing a collaborative process that presents a complementary view at the enterprise and execution level.
- The new portfolio system would bring the three systems together by bridging the gap between stove-piped decision-making systems through linked, collaborative processes, enabling DoD to

⁴ Capability Portfolio Analysis Tool (CPAT) Overview, Stephen Henry, Sandia National Laboratories, presentation to Section 809 Panel, August 9, 2018.

field innovative solutions in a more timely and agile manner, moving the system from a serial decision-making process to a more concurrent process.

Implementation of capability portfolio management (CPM) at execution and enterprise levels is consistent with the current objective of the Combatant Command (CCMD), Military Service, and Defense Agency leadership: balancing investments in the future against today's requirements. With implementation of CPM, decision makers would consider capital investments differently—not as the latest in a series of weapons systems with enhanced capability but as an investment for which resources might better be applied to weapon systems modernizations or readiness in the same capability area. This portfolio structure would allow leadership to understand existing and planned capabilities across DoD.

Under the envisioned process, Military Service/Defense Agency-level portfolios—managed by newlyempowered PAEs (see Recommendation 36)—would be the primary vehicle for execution of the requirements, resources, and acquisition processes in the Military Services and Defense Agencies. The new PAEs would also provide portfolio information to ECPs, enabling the coleads to assess capabilities and identify critical gaps by using mission engineering and other appropriate analytic tools. This flow of portfolio information would also enable the coleads to present a common capability portfolio picture to decision makers in the enterprise-level requirements, resources, and acquisition decision-making chains.

The intended flow of capability portfolio information from PAEs to enterprise-level ECP is shown in Figure 2-6, a version of which appeared in the Section 809 Panel's *Volume 2 Report*. The graphic shows that a single enterprise-level capability portfolio is likely to include multiple execution-level portfolios – including portfolios from multiple Military Services, Defense Agencies, and from functional CCMDs with their own acquisition authority.⁵

⁵ Section 809 Panel, Report of the Advisory Panel on Streamlining and Codifying Acquisition Regulations: Volume 2 of 3, 42 (2018).



Figure 2-6. Notional Enterprise Capability Portfolio Management

DoD should unite the defense acquisition DSS views at the DoD level by establishing civilian and military ECP coleads for each ECP. The military chairs of the six FCBs in the requirements process would be concurrently assigned by the VCJCS to serve as military coleads of the ECPs. Civilian coleads would be nominated and approved by the Under Secretary for Defense (Acquisition and Sustainment) (USD[A&S]) and/or Under Secretary for Defense Research and Engineering (USD(R&E)) and selected by the Deputy Secretary of Defense (DSD). The civilian coleads would also lead relevant issues teams for the D/CAPE and the Comptroller to support the enterprise-level resources process. The two coleads would work jointly with the Under Secretary of Defense for Policy (USD(P)) and other key players to support the enterprise-level strategic planning process.

The ECPs would operate much as Military Services, Defense Agencies, and OSD Integrated Product Teams (IPTs). Each of the ECPs would have committed representatives from cognizant Military Service, Defense Agency, and CCMD offices. ECP coleads would propose a work plan to the DMAG for review and approval. With resources assigned (government and contractor), they would execute the plan and present recommendations to the DMAG. ECPs would also respond as tasked by D/CAPE to lead specific issue teams.

Military Service-level PAEs—with delegated responsibility and authority for capability portfolio requirements, budgets, and acquisition—would bring together the three elements of the defense acquisition DSS in a single office, enabling rapid and comprehensive commitments. The PAEs would not only be responsible for acquisition execution, they would also have authority over requirements and budgets, feeding the Military Service- and enterprise-level requirements and programming processes. The new portfolio system would bring the three systems together through linked, collaborative processes, enabling DoD to field innovative solutions in a more timely and agile manner.

Existing Decision-Making Processes

Implementation of a new multilayered portfolio process would help address deficiencies in the existing DSS that cause DoD to do the following:

- Focus on large, traditional programs instead of smaller, more innovative programs.
- Provide inadequate attention to cross-functional gap analysis and nontraditional solutions.
- Lack the agility needed to adjust to new technologies and new threats.
- Focus too much on process and paperwork, rather than major strategy and risk decisions.

The NDS calls for DSS to "prioritize speed of delivery, continuous adaptation, and frequent modular upgrades." As the NDS acknowledges, however, current processes are "over-optimized for exceptional performance at the expense of providing timely decisions, policies, and capabilities to the warfighter."⁶

Because DSS decision-making processes are so burdensome, program advocates tend to focus their efforts on a few megaprograms that incorporate all available technologies in a single *big bang* acquisition. Recent examples include the Joint Strike Fighter, designed to meet the tactical aviation needs of three Military Services, and the acceleration of multiple advanced technologies onto the lead ship of a new class of aircraft carriers.

These megaprograms, which risk squeezing out available funding that could be used for rapid innovation and risk taking, too often fail to deliver as promised. When DoD tries to develop too many advanced capabilities within a single MDAP, delays in a single critical technology can slow down the entire program and cost billions of dollars. The resulting cost overruns can present funding difficulties for smaller, more innovative programs.

To overcome this problem, DoD needs the ability to rapidly develop less ambitious, more innovative programs. A more diverse portfolio—including smaller, more flexible investments—would enable DoD to adapt more quickly to emerging technology and respond more effectively to changes in the threat environment.

Providing multiple alternative vehicles for maturing technology should also reduce the temptation for larger programs to try to incorporate all available technologies in a single increment and make larger systems more agile and flexible. Some of the smaller investments may fail, but unlike the megaprogram failures dominating the defense budget today, such failures would be an acceptable cost of progress.

Cross-Functional Gap Analysis and Nontraditional Solutions

The NDS calls for increased use of nontraditional suppliers, new entrants, and small-scale vendors that can provide cutting-edge technologies. This approach, the NDS states, will "allow the Department to more quickly respond to changes in the security environment and make it harder for competitors to offset our systems."⁷ The current acquisition system relies on the traditional command organizational

⁶ DoD, A Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge, 10, accessed December 30, 2018, <u>https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf</u>.

⁷ Ibid, 11.

structure to develop new programs from the bottom up. Regardless of the problem, a tank and automotive command is likely to see a new land system as the appropriate solution, while a sea systems command is likely to identify a new surface combatant as the appropriate solution. As a result, the acquisition system tends to focus its energy on developing the *next generation* of existing systems, rather than identifying innovative new approaches. Gap analyses and analyses of alternatives are too often used to justify traditional programs, rather than seriously consider new technologies and new solutions.

To overcome this problem, DoD needs an approach that considers alternative approaches before focusing on a solution. A cross-cutting analysis of gaps and overlaps should take place *before*, not after, DoD settles on a particular material solution to a military problem. A portfolio-based acquisition approach should enable such cross-cutting analysis.

One possible approach would be to apply mission engineering. Mission engineering would provide leadership with tools to facilitate a view of current capabilities and future requirements, thus equipping decision makers with the information necessary to better prioritize limited resources. Successful mission engineering combines the structure of systems engineering with the tactical insights of operational planning. Mission engineering maps system capabilities to mission needs at the capability portfolio level.⁸ Mission engineering emphasizes data driven, capability-based assessments to produce integrated warfighting capabilities that can be translated into specific programmatic guidance for strategic programs and can visually identify gaps.

The mission engineering analysis results are captured in effects/kill chains. These effects/kill chains identify operational needs based on the planned way to fight through mission threads captured in the CCMDs' Operational Plans (OPLANs) and Contingency Plans (CONPLANs). The effects/kill chains may then be used to illuminate capability advantages and disadvantages of the alternatives; consider joint operational plans; examine sufficient feasible alternatives; characterize key assumptions, variables, and sensitivities; and assess technology risk and maturity. For example, the system's ability to achieve the desired capability is assessed in terms of red, yellow, or green. Red would mean some significant degradation to mission; green would indicate the desired capability is being achieved. The analysis provides decision makers with a view of the system capabilities and how investment in resolving issues affects the overall mission and capability delivery.

Existing Decision-Making Processes Lack Sufficient Agility

The NDS calls for a "rapid, iterative approach to capability development" with rapidly evolving platform electronics and software instead of "static configurations that last more than a decade," to reduce costs, technological obsolescence, and acquisition risk.⁹ The current, centralized DSS, with its three separate decision stovepipes, hinders speed and innovation. Not only are small, innovative

⁸ "Mission Engineering Integration and Interoperability (I&I)," James D. Moreland, Naval Sea Systems Command, accessed August 2, 2018, <u>https://www.navsea.navy.mil/Home/Warfare-Centers/NSWC-Dahlgren/Dahlgren-Resources/Leading-Edge/I-I-Leading-Edge/Moreland/</u>.

⁹ DoD, A Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive *Edge*, 11, accessed December 30, 2018, <u>https://www.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf</u>.

programs disfavored, but large programs designed to meet future threats rely on locked-in baselines that limit their ability to respond to new threats and new technology developments.

Private-sector entities and some federal government elements (including the intelligence community) bring together requirements, resourcing, and acquisition decision-making processes to enable decision makers to promulgate needed changes at the speed of relevance. The DSS process, which separates these three processes, makes it extremely difficult to promulgate significant modifications after a program is underway. As a result, DoD adheres to existing requirements long after they clearly cannot be met at reasonable expense and defers critical and available new technologies to future upgrade programs that lie in the indefinite (and unfunded) future. To overcome this problem, DoD needs to create trade space in which reasonable decisions to trade cost, schedule, and performance against capability could be made in real time.

Existing Decision-Making Processes Focus Too Much on Process and Paperwork

The NDS notes that DoD's management structure and processes "are not written in stone," but are "a means to an end"—empowering warfighters with the knowledge, equipment, and support systems to fight and win.¹⁰

The current DoD organizational structure includes many separate stovepipes—each with its own bureaucracy and staff—that are empowered to say *no*, rather than work toward solutions to warfighter problems. The result is a system in which senior decision makers and their supporting staffs devote too much attention to process, procedure, and paperwork, rather than focusing on the major strategy and risk decisions that should be made at the enterprise level. Too often, innovative solutions are bogged down by a micromanaged process in which, as GAO found in a 2015 review, it takes an average of more than 2 years and 5,600 staff days to complete the 49 information requirements needed to support a single acquisition milestone decision.¹¹

To overcome this problem, DoD needs a process by which senior decision makers make major strategy and risk decisions but leave the day-to-day management of individual portfolios and programs to hands-on managers. A multitiered portfolio approach should address this problem by assigning management responsibility to strong, new portfolio managers.

Conclusions

DoD needs a total lifecycle, multitiered, capability portfolio framework for capital investments that continuously seeks to integrate the separate requirements, resourcing, and acquisition decision stovepipes of the current DSS program-centric framework. DoD needs that framework for resource allocation at all management levels to compete in the 21st century where innovation, flexibility, and response time are critical. The multitiered portfolio framework under which authority is delegated can more effectively prioritize innovation and experimentation, consider nontraditional solutions, conduct more effective gap analysis, respond to new threats and rapidly integrate technologies in a more agile

¹⁰ Ibid, 10.

¹¹ GAO, Acquisition Reform: DOD Should Streamline Its Decision-Making Process for Weapon Systems to Reduce Inefficiencies, GAO-15-19, February 2015, accessed December 30, 2018, <u>https://www.gao.gov/assets/670/668629.pdf</u>.

manner, and reduce the burdens of bureaucracy and micromanagement. Framework implementation would be facilitated by doing the following:

- Expand or adopt successful portfolio management models developed in DoD—such as FCB portfolios—and the private sector to the special imperatives and relationships in DoD organization. Private-sector portfolio management principles have been adopted in some parts of the government, as exemplified most recently by Office of Management and Budget (OMB) Memorandum M–18–19, and over the longer term by the portfolio standards incorporated into OMB Circular A–11. With some adjustment to accommodate requirements of the appropriations process and the Military Service-based DoD organizational structure, these standards might be incorporated into DoD's new capital investment system as well.
- Empower PAEs in the Military Services and Defense Agencies with delegated authority to collaborate with peers in requirements and resourcing within trade space provided and to present a common portfolio and program picture to Military Service-level and OSD/JCS leadership. This framework would minimize time to commitment, resulting in a more agile system that has the flexibility to respond to changing threats and emerging technologies.
- Designate senior DoD officials (military and civilian) as ECP coleads and charge them with integrating, synchronizing, and coordinating capability portfolio content to address capital investment alignment to strategic priorities and capability demand. ECP coleads would have no independent decision-making authority but would be responsible for providing cross-cutting analysis of capability portfolios and presenting a common capability portfolio picture to enterprise-level decision makers. ECPs will be aligned with the already-established FCBs initially; however, they may evolve together over time to provide as broad and segmented view of enterprise capabilities as possible to inform requirements, resourcing, and acquisition/sustainment decisions.¹²
 - Require ECP to develop strategic plans and roadmaps to provide a vision for the evolution of missions within their capability portfolios over time, help drive S&T investment and provide metrics for measuring capability portfolio performance.
 - Require a 20 year strategic plan which leverage the operational expertise of the CCMDs and the Senior Warfighter Forums — as well as scenario-based war games, mission engineering, and other strategic analysis that focus on desired outcomes rather than projected systems to identify capability and resource mismatches, including gaps, shortfalls, and redundancies
 - Require adequate resourcing of ECPs to produce these plans, as well as other portfolio-level documents.
 - Require aligned execution portfolios and ECPs to share information continuously because both assess current and needed capabilities, including cross-cutting capabilities, for presentation with recommendations to the DoD decision makers at all levels.

¹² There are currently six FCBs, with responsibility for C4/Cyber, Battlespace Awareness, Logistics, Force Integration, Protection, and Force Application, respectively. An additional Joint Capabilities Area (JCA), for Corporate Management and Support, does not have an FCB, and is included instead in a separate portfolio process led by the Chief Management Officer.

- The ECP military coleads will serve concurrently as FCB chairs. The civilian coleads can lead issue teams on behalf of the D/CAPE and the Comptroller. The two coleads would also work together to identify cross-cutting acquisition issues that should be raised through the USD(A&S) and the USD(R&E) and VCJCS to the DMAG and JROC.
- Approve a portion of the defensewide funding line for rapid development/prototyping (including the Rapid Prototyping Fund established pursuant to Section 804 of the FY 2016 NDAA) controlled by the USD(R&E), a portion of which will be allocated to the ECPs to provide seed money for key Execution and Enterprise portfolio priorities in accordance with strategic plans. Such a dedicated fund for emergent (within budget cycle) innovative and agile acquisition initiatives would provide a lever with which ECPs could address unfunded gaps or opportunities in Military Service execution strategic plans in support of programs.

Implementation

Legislative Branch

Note: Legislative implementation here are identified as subrecommendations to allow for better reference to them in the draft legislation text in the Implementation Details section that follows.

- Subrec. A: Direct DoD to transition the current DAS to a total lifecycle, multitiered (execution and enterprise), capability portfolio-centric framework that integrates requirements, budget, and acquisition/sustainment for capital investments/resource allocation. Incorporate above recommendations in a revision to DoDD 5000.01, The Defense Acquisition System Directive. A draft revised DoDD 5000.01 is attached in the Implementation Details for this section.
- Subrec. B: Direct DoD to establish ECPs to integrate, synchronize, and coordinate capability
 portfolio content to address capital investment alignment to strategic priorities and capability
 demand. ECP should be led by senior civilian and military personnel of SES/flag/general rank,
 pointed by DSD and VCJCS respectively. ECP coleads would have no independent decisionmaking authority but would be responsible for providing cross-cutting analysis of capability
 portfolios and presenting a common capability portfolio picture to enterprise-level decision
 makers.
- Subrec. C: Direct DoD to establish processes for ECPs to use a portion of defensewide funding for rapid development/prototyping funding controlled by the USD(R&E) to provide seed money for key portfolio priorities in accordance with strategic plans.
- Subrec. D: Provide increased flexibility in the appropriations and reprogramming processes, including the enhanced reprogramming authority discussed in Recommendations 46-48 of this report, to ensure that PAEs can provide timely responses to new threats, emerging technologies, and developments in portfolio performance.

Executive Branch

 Revise DoDD 5000.01, Defense Acquisition System, or cancel it and initiate a new directive that will be The Defense Capability Acquisition and Sustainment Framework that will:

- Maintain and/or strengthen principles and policies in the existing DoDD 5000.01 while establishing a new model, Defense Capability Acquisition and Sustainment Framework (DCASF). The DCASF will be a through lifecycle, multitiered, capability portfolio acquisition and sustainment framework for capital investments that continuously seeks to integrate requirements, budget, acquisition/sustainment views of programs and services for more informed and collaborative decisions. Rescind DoDD 7045.20, Capability Portfolio Management, and include in revised DoDD 5000.01 or new Directive for Defense Capability Acquisition and Sustainment Framework and include its provisions for full-time civilian and military coleads to provide cross-cutting analysis and present a common capability portfolio picture to enterprise-level decision makers.
- Provide for the DSD to appoint civilian ECP coleads who are experienced members of Senior Executive Service from a slate provided by USD(R&E) and USD(A&S). Nominees may come from any DoD acquisition activity or organization.
- Provide for the military ECP colead to be a general or flag officer appointed by the VCJCS in consultation with Military Services and CCMDs. ECP military coleads will serve concurrently as chair of the relevant FCB in the JCIDS process.
- Require that ECPs have visibility on the full range of weapon systems and any evolving crosscutting mission areas.
 - Note that the ECPs would not include business systems, because DoD is already developing separate business system portfolios under the Chief Management Officer's leadership.
- Require DSD and VCJCS to develop a DoD implementing directive for the operation of the ECPs that includes but are not limited to the following:
 - ECP coleads are jointly responsible for raising cross-cutting issues in the enterprise requirements, programming/budgeting, and acquisition review processes.
 - ECP coleads are responsible for identifying cross-cutting requirements, programming/budgeting, and acquisition/sustainment issues and raising them with the Military Services (and appropriate Defense Agencies).
 - ECP civilian colead leading issues teams through the 3-Star and DMAG review processes.
 - ECP coleads are responsible for identifying cross-cutting acquisition issues, raising them to the Military Services (and appropriate Defense Agencies), and if necessary, working them through USD(A&S) and/or USD(R&E) to the DMAG.
 - ECP coleads develop strategic plans and roadmaps to show a vision for the development of capability portfolios over time and to help drive S&T and rapid capability investments.
 - ECP coleads establish positive relationships with PAEs, to include exchange of information, data, decisions, and planning, working toward a common view of every particular capability set.
 - Establish a defensewide funding line for rapid development/prototyping funding (including the Rapid Prototyping Fund established pursuant to Section 804 of the FY 2016 NDAA) under control of the USD(R&E), with a portion available to ECP coleads to provide funding for use by Military Service/Defense Agency execution portfolio to address priority opportunities when Military Service/Defense Agency funding is unavailable.

Implications for Other Agencies

• There are no cross-agency implications for this recommendation.