EBOOK

Four Essential Elements of an Agile Next-Generation Defense Resourcing System

DECISION LENS

Table of Contents

Background

The consolidation of the world's industrial, technological, and demographic power in Eurasia under hegemonic governments is leading us into the era of great power competition. Led by China's investment in rapidly modernizing its military and Russia's ongoing aggressiveness in Europe, the United States faces more dynamic near-peer competitors than ever before.

Unlike the Soviet Union whose centralized planning was a factor in its undoing, these potential rivals are deploying agile planning and budgeting strategies to win tomorrow's wars. Meanwhile, America's current PPBE process is a primary culprit behind the ongoing decline in US government's return on investment (ROI) for each dollar spent on national security[1]. Having become divorced from time and urgency, the PPBE process has left defense resourcing festering in inefficiency. It is cumbersome and slow, the very opposite of the agility epitomized by Silicon Valley – once a more consistent DoD partner driving innovation.

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> **"The surest way to prevent war is to be prepared to win one."**
>
> *– James Mattis, Former SECDEF*

Ultimately, America has acknowledged that its processes for budget, acquisition, and procurement – all of which are essential to developing and maintaining our superiority – are broken. To address this, the United States Congress established the PPBE Reform Commission in 2022 and began implementing its recommendations to allow for the world-class productivity and disruptive innovation of the past by untangling the bureaucratic, risk averse PPBE process.

This change must come quickly – China is innovating faster than our traditional systems can respond by leveraging the commercial market there, sparking fear it will meet or surpass the United States. In fact, China may already have an edge in its resource allocation process. Evidence includes their ability to develop and field 25 new unmanned aircraft systems from 2010 to 2020, including stealthy carrier-based unmanned systems[2].

To better compete we must deploy a defense resourcing system which delivers greater productivity and faster innovation per equivalent dollar spent. The reforms recommended by the PPBE Commission are a good start but there are additional considerations to prevent future conflict by achieving greater productivity and faster innovation per equivalent dollar spent on our defense, which will maintain America's global dominance.

Why Today's Defense Resourcing System Doesn't Support Modern Warfare

Predictability is at the heart of the PPBE process. Predictability made experience tantamount when it came to allocating resources and prioritizing investments. The results were processes that demanded predictability to be efficient and effective. However, the last several decades have taught us one infallible lesson - predictability is a vestige of a bygone era. The result is an approach to prioritizing, planning, and funding which is equally anachronistic.

Overcoming these inherent systematic flaws requires a nuanced understanding of what they are and how it impacts modern warfare.

- Reliance on Slow, Error-Prone Manual Processes

- Lack of a Consistent Enterprise Decision Approach Prevents Strategic Alignment

- It's too Rigid for the Year of Execution

- It does not engender trust or collaboration

Reliance on Slow Manual Processes Hinder Aligning Budget to Strategy

Underpinning all the challenges with defense resourcing are entrenched but extremely out-of-date processes which many organizations cling to for comfort and convenience. However, these manual tasks demand significant investment of time while the DoD has and continues to suffer staffing constraints. A more complex world has resulted in an explosion of data required to make effective decisions. However, the DoD continues to rely on antiquated processes developed for a simpler time with less data and input. Today, thousands of hours are spent on low-value data collection via email, spreadsheets, and slides creating an undue tax on the system which wastes precious resources.

Beyond wasting resources, manual processes also prevent dollars from being deployed as effectively as possible in the following ways.

- **Delay Decision-Making.** Delays in collecting, organizing, and analyzing data often means decisions are postponed or made on old data. In an era of real-time data this is simply unacceptable.

- **Data Errors are a Concern.** While error messages are readily apparent, a faulty formula or errant macro could return numbers that look legitimate but lead to the wrong situational assessment.

- **Insufficient Data Analysis.** Financial managers, budget managers, and program managers are required to spend much of their time validating data, limiting the ability to conduct deeper analysis such as providing alternative courses of action.

The only way for the DoD to parse through mountains of data, adapt to changing conditions, and empower decision-making at echelon is to rely on automation - as the private sector has done successfully for decades.

It Prevents Strategic Alignment of Multi-Domain Initiatives

While aligning strategy and execution was the initial objective of instituting the PPBE process, it now severs these two elements, inextricably divorcing one from the other. While evident within a single unit, the separation of strategy and execution becomes more pronounced when looking across major commands and multi-domain initiatives.

One way to marry these elements together again is through reliance on an enterprise decision framework that allows data science to bolster the art of decision-making.

Modern technology allows an enterprise decision framework to effectively compare priorities, resource allocation, and alternative scenarios across a range of possibilities. Such an approach is especially important as modern warfare includes greater reliance on initiatives such as JADC2, which demand a view across portfolios to assess how investment can meet the sometimes-overlapping requirements of the joint mission.

Because JADC2 lacks a single program manager or overseer, the result is a loosely coordinated effort without any accountability or enforcement on the front end. To sustainably deploy the JADC2 vision, each branch of the military should rely on a consistent decision framework that can aggregate and analyze data in a cohesive, actionable way. This unified framework will allow dollars to be more effectively spent today while driving JADC2 forward in a tangible way by channeling year-of-execution data into future PPBE cycles.

The impact won't be limited just to cross-branch initiatives but will also have substantive impact from the lowest levels all the way through major commands. A properly implemented enterprise decision framework will create a feedback loop for including performance data into a variety of planning cycles encompassing mid-term POM, FYDP, and long-term 10+ year planning.

It's Too Rigid to Keep Up with a Changing Mission

While medium and long-range planning initiatives like JADC2 suffer under the current approach to defense resourcing it may present even greater challenges for short-range allocation and execution of funds.

In today's dynamic threat environment, the military cannot efficiently resource emergent needs during the year of execution or effectively integrate in-year changes to the Future Year Defense Program (FYDP). The solution to this problem today is for Congress to provide additional funding to the military as unexpected conflicts arise. However, this approach does not solve the underlying issue that speed is a difference maker.

Re-programming is one example of how bureaucratic oversights, manual processes, and a lack of transparency favor predictability and impede readiness. At the core of the issue, re-programming limits are designed to ensure Congressional oversight on spending. The antiquated foundations of the PPBE process contribute to this issue because historically there were limited ways to share information, collaborate in real time, and conduct long-term audits.

However, with better software some of the oversight concerns with reprogramming could be overcome. The PPBE Reform Commission suggested as much when it recommended increasing the below threshold reprogramming limits to provide more flexibility while allowing Congress to maintain oversight to overcome the following:

Slowness of the approach	Reprogramming of funds often requires several layers of approval and review, and today's manual approach requires significant resources to accommodate additional data requests.

Impeding the warfighter effort	While DoD and Congress have acted quickly for many major events, response times are inconsistent – studies suggest some approvals may take months - resulting in potential delays in action.

Congress shouldn't fear a more agile approach to defense resourcing since according to Philip Candreva, 85% percent of the time it did not alter a reprogramming request but let it proceed as requested.

It's Meant to Mitigate Risk

The current system is designed to mitigate risk, which often leads to too safe decisions that don't drive innovation. Between fiscal years 2013 and 2018, the Department of Defense had more than $81 billion canceled, most in appropriations[3]. If the right systems and culture had been in place, the canceled funds could have been combined and invested in furthering the mission.

Inaction is driven by worries that a decision may be proven incorrect, and responsibility is cast upon an individual who finds it difficult to audit and justify a decision. The result is an unwillingness to share pre-decisional information openly and honestly. However, thoughtful deliberation and appreciation for differing perspectives lead to better outcomes. But this first requires the ability to justify requests with the depth of information necessary to defend a position.

Fear results in less collaboration by driving some planning and programming details onto classified enclaves even though the budget becomes public record upon release to Congress. Reliance on classified systems when not strictly necessary limits the cutting-edge commercial cloud software available. However, commercial solutions would provide the means to collect, collaborate, and audit decisions in a transparent way which would inevitably yield better investment of taxpayer dollars.

Ultimately, this final flaw discourages risk taking, free discussion, and ongoing collaboration due to fear of reprisals. Better technology will lead to more transparency and less finger-pointing, which are critical to ushering in a more risk-taking culture.

The Guiding Principles of a Next-Generation Defense Resourcing System

Agile and Integrated.

These are the two most critical adjectives to describe the ideal principles of a next generation defense resourcing system.

A system which is agile and integrated will afford our military a sustained operational advantage providing decision-makers with data-informed options to act definitively in the short-term and confidently in the long-term.

The next-generation defense budget must achieve the following:

- Effectively balance the tradeoffs between readiness and future force capabilities

- Allow for rapid response to world events with full awareness of the consequences

- Deliver innovations to the warfighter at a faster pace

- Support joint force mission planning and execution

To meet these objectives a next-generation resourcing system must adhere to the following guiding principles.

Available & Adopted Enterprise-Wide

Continuous, integrated planning requires a holistic look across the entire enterprise to identify and influence the key factors and linkages which assure mission success. These linkages maintain strategic alignment, deliver enterprise agility, and result in more effective decision making. They also are critical for joint-mission success.

Delivering a modern defense resourcing system requires a cultural change in addition to modern software. Changes must include:

- A common decision framework to provide a broad view for a department, a Major Command, an entire branch, or multi-domain initiatives to align spending to strategy.

- Strong leadership prepared to defend investing time and dollars into modernization.

- Accessible via secure government-cloud approved platforms such as AWS GovCloud, Second Front Systems, and/or Advana.

Enterprise adoption doesn't simply mean a single unit or one Major Command relying on a solution. The broader goal – which will deliver on the promise of short and long-term strategic alignment – requires the DoD to begin adopting an approach to decision making at the Pentagon level down and through the individual branches of the military. This system can also be used to foster improved communications between the Department of Defense and Congress – another recommendation of the PPBE Reform Commission.

While such sweeping adoption will take time, having the right building blocks will allow for rapid proliferation of the approach and deliver the network effect required for maximum impact.

Integrated Planning is at its Core

Our current budget approach is episodic and disconnected. It provides little insight into historical performance or trends and often treats each planning cycle as new, excluding learnings from past cycles. Continuous planning is an improvement, as it relies on near real-time data and feedback loops to enhance current execution while improving future planning cycles. The goal, however, is to have integrated planning at the core of the next defense resourcing system.

Integrated planning takes continuous planning one step further by connecting dynamic, external factors from macro trends such as inflation to individual events such as a natural disaster and allowing organizations to adjust planning accordingly in real-time. Integrated planning creates the foundation for evaluating and understanding the holistic needs of an organization, both now and in the future. Some additional benefits include:

- Is flexible enough to optimize how resources are allocated based on changing conditions

- Promotes collaboration by uniting functions by sharing data to make decisions

- It aligns every part of the organization to higher echelon priorities and to the organization's mission, strategic plan, and budgetary resources.

Integrated planning will have a positive impact on each element of the PPBE process. Integrated planning build on the benefits of continuous planning and when implemented atop an enterprise-wide decision framework allows organizations to maximize every dollar.

Delivers Ongoing Mission Alignment

There are three primary time horizons which must be considered when evaluating any financial or resourcing decision. The short-, medium-, and long-range plans must each maximally invest in the mission while dynamically informing each other.

- **Short-term readiness.** We must restore readiness, not maintain it. This requires tying year of execution funding to readiness objectives and understanding how and when changes happen along with the impact. Every decision must have a well understood consequence, and plan to replace diverted readiness funds in the current or future years.

- **Medium-term modernization.** The DoD must determine not only how and when to modernize, but also how to mitigate the cost of modernization. Achieving modernization requires fiscal discipline, a sound strategy, and the tools necessary to assess how raiding modernization accounts will impact the mission.

- **Long-range force strength.** Viable policy decisions require more input and engagement from financial executives across hierarchy and units. These individuals must understand the long-term mission, how investment aligns to these missions, and have a feedback loop on which to base decisions.

Integrated planning delivers on these requirements. Short-term execution is improved by continuously evaluating current spend levels allowing for re-allocation of funds and resources to the next highest priority as they become available. Finally, integrating all these data points into long-range planning will provide a more comprehensive view of current and future states. Not only does each phase of planning benefit from an integrated approach but the entire system demonstrates dramatically improved outcomes.

Delivering mission alignment requires better decision-making, which demands harmonized data in as few systems of record as possible. The Army recognizes that it has a strategy-to-resource mismatch and that solving it means doing things differently from now on.

The next generation defense resourcing system must not overload management, must be well integrated, automated, and roll up to align to an enterprise decision framework which ties investment back to the mission.

Transparency is Bolstered by Collaboration

A next-generation defense resourcing system must – as highlighted by the PPBE Reform Commission - build a bridge between Congress and the Department of Defense. Instead of introducing more bureaucracy, technology can break down barriers by maintaining transparency while adding agility.
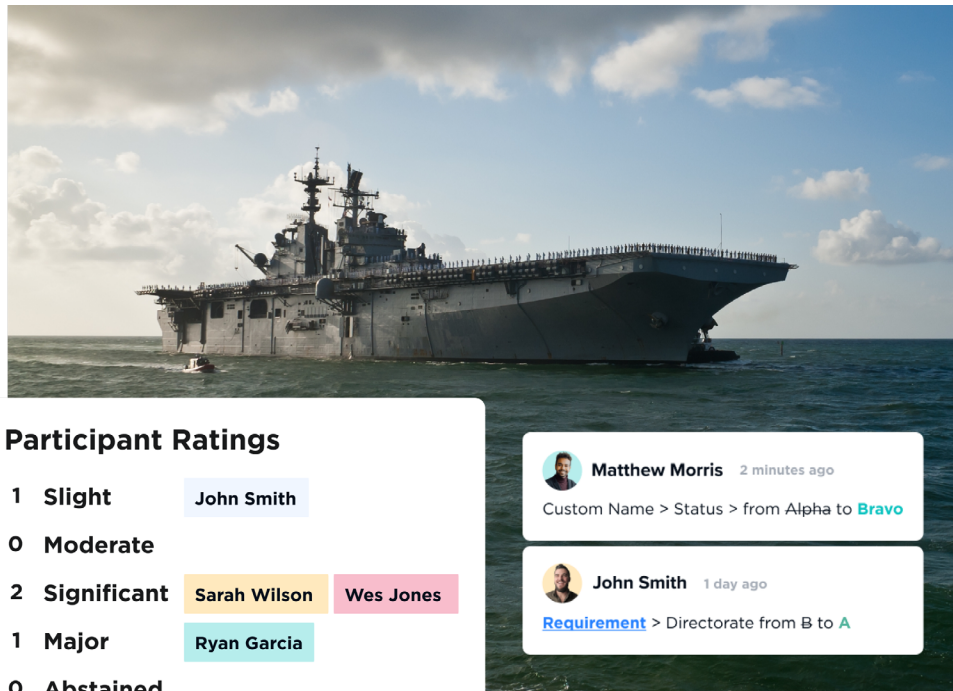
To deliver on this stated requirement, the DoD must institute a mechanism for promoting continuous dialogue that recognizes transparency is an act of mutual trust. Our next-generation system must promote this notion by guaranteeing that decisions are understandable, auditable, and well-considered.

As discussed at length by DoD leadership, it is important to delegate decision authority to highly responsible lower-ranked front-line workers who can openly discuss and debate the merits of resourcing decisions based on a consistent set of data based on a flexible, transparent framework.

The most productive approach to strategic planning is to engage in open dialogue with key stakeholders, provide context, request feedback and suggestions, and develop compromise positions that still achieve desired effects. Today's system veers towards closed collaboration due to fear of openly and honestly sharing pre-decisional information. By leveraging an objective data-driven approach, decision makers remain anchored in facts which allow opinions to play an important role in the decision-making process but do not function untethered from the facts.

Maintaining a system of record where this discourse happens makes all records auditable, holding individuals in the decision-making process accountable and providing needed Congressional oversight. Secure groups with robust permissioning allow for improved data sharing between the Department of Defense and Congress.

Secure technology is paramount for a collaborative tool and any system should support secure government cloud infrastructure and offer robust permissioning capabilities.

Powered by Leading-Edge Technology

Unleashing the power of the United States' private sector – with its unmatched innovation and extraordinary capital investment potential – can reverse the U.S. slide in capabilities relative to China and maintain our edge across a range of critical technologies[4].

Commercial innovations such as automation, cloud-native, artificial intelligence, and yet unrealized future capabilities must be easy to identify, acquire, and deploy. Efficiently integrating these technologies will result in a sustained operational advantage which delivers maximum value from every tax dollar. New innovations will allow for:

Agility

Artificial intelligence and machine learning can deliver insights into the impact of changing conditions and present a variety of potential outcomes nearly instantaneously allowing for more situationally aware decisions.

Speed

Automation delivers data and insight to leaders faster by putting in longer hours than possible when relying solely on a human workforce.

Improved accuracy

When repetitive processes have exacting standards, machines almost universally do a better job.

Commercial software also fulfills another essential ingredient: speed. Commercial solutions – include built-in best practices for optimal process re-engineering and can be deployed in weeks or months instead of years and decades. Off-the-shelf software offers cutting edge capabilities, scales for enterprise use, and is designed for usability. It costs less than legacy systems freeing up funds for other mission critical investments.

Beyond these operational benefits, new capabilities will fundamentally change how the DoD operates. Decision makers with access to features such as scenario planning can evaluate hundreds or thousands of alternative courses of action, rely on purpose-built visuals which keep their organization on track, and connect multiple systems to ensure ongoing flow of data.

While programs such as AFWERX exist, the DoD needs to leverage commercial software at the core of the next generation budget resourcing system. To make this a reality, the DoD must promote lean-forward leaders who are looking for innovation to squeeze every efficiency out of the system.

An Unparalleled Opportunity for Innovation

China's relentless digital modernization is eroding US overmatch, resulting in increasing risk to our dominance. We cannot accept the diminishing return on each dollar invested under PPBE and expect to keep pace with China's continued investment in transformation. The only answer to offsetting these shifting global dynamics, is accelerated adoption of a next generation defense resourcing system

As highlighted by the PPBE Reform Commission and others, the PPBE system requires a foundational overhaul. By investing in next-generation principles, the US can leverage its software supremacy to more effectively compete. The US cannot forego readiness nor over-invest in it. Alternatively, we cannot under-invest in modernization. The only way to achieve both ends is by ensuring every dollar is spent wisely. We must be able simultaneously plan for the future while winning today.

With the right partners, the best technology, and forward-leading thinkers America can achieve the software supremacy necessary to deter threats and deliver for our warfighters. By rethinking how it plans, prioritizes, and funds the DoD will regain lost momentum, restore readiness, and win the future.

About Decision Lens

Decision Lens is integrated planning software which modernizes how government prioritizes, plans, and funds. We believe a next generation defense resourcing system must allow for more fiscally responsible, mission-aligned decisions to maximize every dollar spent.

Decision Lens addresses the shortcomings of the current defense resourcing system by offering a SaaS platform developed with input from military and civilian leaders struggling with the current PPBE process. Built on unique expertise in decision science, customers across the achieving a sustained operational advantage though superior long-range planning, continuous medium-range prioritization, and short-range funding execution.

Key features include:

- **Decision Analytic Framework.** Better data management starts with an enterprise decision framework. Once implemented, organizations can plan for the long term while maintaining short term agility to compare scenarios and make trade-offs across their portfolios.

- **Automated Data Collection.** Automated input workflows map your data quickly and accurately to reduce inefficiencies and errors associated with collecting and consolidating disparate inputs.

- **Scenario Planning.** Empowers users with the ability to evaluate alternative courses of action for exploring varied resource allocation possibilities.

- **Purpose Built Visualizations.** Quickly assess planned vs. actual spending, resource availability, and future projections, to proactively manage your project portfolios.

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