Business Executives for National Security (BENS) is a unique nonpartisan nonprofit comprised of senior business and industry executives who volunteer their time and expertise to address the national security community’s most pressing challenges.
INTRODUCTION

The Department of Defense (DoD) is about to undergo one of its more significant reorganizations since the Goldwater-Nichols Act transformed the Department’s chain of command three decades ago. The 2017 National Defense Authorization Act mandates that the Office of the Under Secretary of Acquisition, Technology & Logistics (OUSD(AT&L)) divide into two distinct Under Secretaries by February 2018: one for Research & Engineering (R&E) and another for Acquisition & Sustainment (A&S). In a statement, Senator John McCain, Chairman of the Senate Armed Services Committee, observed that the technological advancements made by nation-state competitors are “increasing [the] risk of losing the military technological dominance that we have taken for granted for thirty years.” Accordingly, Chairman McCain concluded that “innovation cannot be an auxiliary office at the Department of Defense. It must be the central mission of its acquisition system.”

Currently, OUSD(AT&L) is responsible for over 17 different portfolios, including acquisition, logistics, research & development, and installation management. Successfully dividing the responsibilities associated with these portfolios between two new under secretaries will be challenging. It will require a coherent business case aligned with a transparent roadmap for implementation, in which all employees understand their role. This approach is an industry standard and was one of the key observations by a group of Business Executives for National Security (BENS) Members who offered their insight into how to accomplish the OUSD(AT&L) split. In partnership with the House Armed Services Committee, BENS Members outlined the keys for success during a corporate reorganization. This included specific recommendations for how to:

• Divide responsibilities between corporate and division levels;
• Maintain accountability throughout an organization;
• Conduct market research;
• Implement data governance processes;
• Effectively manage talent and empower lower-level employees; and
• Manage the interface between R&E and A&S.

This insight is not intended to be overly prescriptive. Rather, it serves to highlight issues, as identified by industry leaders, that the Department and/ or Congress may consider as they examine ways to enable a more agile acquisition process through the OUSD(AT&L) reorganization.
LEADERSHIP

TALENT MANAGEMENT

ACCOUNTABILITY
& DECISION MAKING

MARKET RESEARCH & INSOURCING/OUTSOURCING DECISIONS

MANAGING INTERFACES

DATA, METRICS, AND EVALUATION
BUSINESS CASE

As stated, private industry approaches a significant corporate reorganization (e.g. a merger, acquisition, or corporate spin-off) in a deliberate process which begins with developing a business case for change that is linked to an economic driver, or rationale, for change. While developing this business case, companies frequently map their current systems in order to gain a clear understanding of the “as is” process and identify specific inefficiencies or opportunities for improvement. A business case also provides a clear picture of the desired end state and common definition of what success looks like. Beginning with the end in mind, and developing that vision collaboratively, is widely acknowledged as a critical first step before executing any major corporate reorganization.

Once the business case is established, companies develop a road map for implementation. Among other things, this roadmap: identifies the minimum number of assets that need to be divested, rationalized, or consolidated in order to achieve the desired reorganization; establishes objectives and timelines for meeting them; determines acceptable levels of risk tolerance; and develops mechanisms for constant feedback and process improvement. Once established, the business case and road map must be communicated in a clear, concise, and consistent manner to all employees so that they can understand and embrace their role in achieving the organization’s desired end-state.

As part of their development, the business case and the roadmap for implementation should provide for the inclusion of the following keys to success and define how they relate to the overarching mission. This should ensure that the reorganization process is driven by a predetermined set of parameters and does not fall victim to inconsistencies or imprecision.
LEADERSHIP
Attentive and deliberate leaders are the hallmark of any successful corporate reorganization. There must be distinct and clearly defined levels of leadership, as well as a designated recipient for unintended managerial responsibilities.

TALENT MANAGEMENT
Innovative talent management is marked by empowering high-performing teams to take risks and make decisions, coupled with a responsive feedback process for lower-level/younger employees to inform larger corporate decisions.

ACCOUNTABILITY & DECISION-MAKING
Organizations should empower lower-level employees to make responsible decisions and encourage a quick, upward flow of bad news, as well as ensure the placement of attentive leaders at every level.

MANAGING INTERFACES
Decisions regarding research and development investments are not made in a vacuum. Cross-functional teams provide important perspectives that enhance the ability of innovative ideas to maintain momentum.

MARKET RESEARCH & INSOURCING/OUTSOURCING
Reduce time to market through agile, iterative design process with a goal to go to market with minimally acceptable products and improve through feedback. Utilize purchased research to increase speed of delivery or adapt current products and systems for specific needs at lower costs.

DATA, METRICS, AND EVALUATION
Determine what information is valuable in the process of making decisions, and subsequently take steps to collect that information in an efficient manner. Data should be rooted in a company-wide understanding of how data feeds into the metrics used to evaluate progress toward the overall business mission.

Corporate reorganization begins by developing a business case for change.
A successful corporate reorganization requires attentive and deliberate leadership, responsible for developing a business case for change and communicating it down through their organization. There are two leadership issues worthy of consideration:

1. **Distinct levels of leadership.** In the corporate world, there are two distinct levels of leadership: the C-suite executive level and the Board of Directors level. The C-suite is responsible both for establishing an organization’s mission, vision, and business case for change, as well as for guiding its implementation throughout the organization. The Board of Directors advise the C-suite and provide oversight of corporate functions. This requires a collaborative relationship wherein each level of leadership shares a mutual definition of success, agrees on the type of data that will be used to measure progress toward that definition, and understands the acceptable levels of risk contained therein. Thus, it may be prudent to create a risk-aware approach that first, defines all significant risks, and second, creates risk mitigation plans based on identified early indicators. Such an approach would need support from all Department leadership and oversight.

2. **Unintended managerial responsibilities.** In the private sector, the C-suite executives are responsible for resolving disputes between different business units when they arise. In some organizations, this referee may be the chief operating officer, chief financial officer, or even the chief executive officer. In dividing OUSD(AT&L) into two separate undersecretaries, it will be important to consider which office will be responsible for resolving any disputes that may arise. As currently planned, this responsibility may fall to the Office of the Deputy Secretary, which may be the appropriate place, but might also contribute to unintended managerial responsibilities for that office.
TALENT MANAGEMENT

A successful corporate reorganization is dependent on making sure the correct people are in place to execute both the reorganization itself, as well as to maintain the new business units. There are two talent management issues worth considering:

1. **Processes and people.** Many of the most innovative firms rely on high-performing teams who understand and embrace their role in the organization, and are empowered to take calculated risks and make the decisions necessary to achieve the overall mission. This approach fundamentally links business objectives from top to bottom. Creating these teams requires developing clear organizational processes that are implemented and continuously improved upon based on employee feedback. **Organizations must also determine at what level key performance indicators (KPI) are established.** If the KPI are established at too high of a corporate level, it may be challenging for employees to understand how they can meaningfully contribute to the company's goal. Conversely, if the KPI are established at too low of a level (e.g. the individual or team level), they can become detached from the company's overall goal, which can result in employees meeting their KPI but the company failing to achieve its overall goal. As important as it is to establish and continuously improve these processes, **it is imperative this process is not emphasized at the expense of the company's human capital.** Companies who successfully establish and enable an innovative and efficient organization do not view people as interchangeable parts in their process, but rather they focus on recruiting and cultivating talented employees. To that end, leaders at the levels the KPI are established are responsible for both achieving the KPI and for ensuring that any failure on the part of employees to support that goal is improved or removed.

2. **Reverse hierarchies.** In rapidly innovating industries, companies develop responsive feedback processes for lower-level or younger employees to inform larger corporate decisions. One BENS Member called this a “reverse hierarchy.” These feedback loops can serve multiple purposes. First, the younger or lower-level employees may have better insight into how technology could be incorporated in a company’s front-line functions. Second, in the case of the Department of Defense, large acquisition or development programs may take years and are often initiated to address a future capability. Therefore, it may be prudent to develop mechanisms that allow younger employees to inform the decision-making process outside of the traditional requirements generation process as they will be the ones responsible for fielding or maintaining the program years later.
ACCOUNTABILITY & DECISION MAKING

Though it is counterintuitive, large hierarchical organizations are often mired in bureaucracy and habit to the point that accountability and decision-making authority become opaque matters. Through the process of reorganization and beyond, it is important to identify not just the key decision points, but who (or what office) is specifically responsible for making those decisions.

1. **Empowering lower levels.** The majority of BENS Members indicated that they emphasize empowering employees at the lower levels of their organizations. The objective of this practice is to enable those individuals who are the closest to the product, mission, or customer to be able to make quick and responsible decisions as the conditions warrant. In order to maintain oversight, some BENS Members indicated that they establish risk or resource thresholds under which employees are empowered to make decisions. These thresholds should be informed by the prior identification of possible risks, combined with the development of “early indication” processes that endeavor to understand and mitigate any effects of said risks. As lower levels are empowered to make decisions under these parameters, it is also necessary to emphasize the development of capable middle managers. *Part of their leadership development should include identifying bad decisions and learning from mistakes.* Many companies encourage, if not demand, the quick, upward flow of bad news in order to remediate a situation and understand the root causes. Likewise, it’s equally important to understand the root causes of success, so that best practices may be recorded and scaled.

2. **Attentive leadership.** Many BENS Members indicated that at the executive level, it is important for leadership to hold their staff accountable. Empowering lower-level employees heightens the importance of this general practice; and therefore, should be coupled with the maintenance of accountability through attentive leadership. This can manifest in many ways, such as holding regular meetings to ask direct questions and taking deep dives into specific topics. *As the Members indicated, if your team knows you are going to ask multiple in-depth questions, it forces them to be prepared. However, accountability reinforcement does not have to be a punitive exercise.* People can be held accountable for the things they did well, and in those cases it is important to identify root causes of success so that they can be scaled and implemented elsewhere.
The concept of the “valley of death” for innovative products and systems is familiar to both the private sector and the defense acquisition space. This is the moment in a product lifecycle when it should move from the R&E process to become a program of record. Unfortunately, this is when programs are most vulnerable, given a frequent inability to obtain funds for proper acquisition. Care should be taken that an additional “valley of death” is not created with the pending AT&L reorganization.

1. **Embedding R&E within a transparent process.** In private industry, decisions regarding R&E investments are not made in a vacuum. It would be short-sighted to have engineers make decisions without input from the finance department, supply chain managers, manufacturers, etc. Therefore, A&S, as well as representatives from other business units, are brought into the process early to provide their perspective. These cross-functional teams are formed at the corporate level and evaluate all programs early in the development process. Companies achieve this by developing strong, transparent processes to manage the interface between R&E and A&S. These processes do not stifle innovative thinking, but do account for the myriad stakeholders who are involved in R&E decisions.

Managing the interface between R&E and A&S is a key factor in determining how R&E will achieve the ultimate mission carried out by A&S. Decisions should be made with input from both, requiring management from leadership and cross-function understanding of goals, definitions, and process. Sharing research and opinions is important, but effective management will ensure that this does not stifle innovation and time to market. In all cases, there must be a clearly defined relationship between R&E, A&S (and even S&T), and how they nest within a corporate strategy.

2. **Product Champions.** Successfully transferring a product from research to operations is a critical juncture that can determine the long-term viability of the product. Accordingly, some companies will detail one employee or a small team of employees to transition technology from the research phase to the maintenance phase. If this doesn’t happen, companies risk transferring technology without the institutional knowledge that went into developing it. Companies often find “champions” for projects who are responsible for shepherding the product through development and helping to transfer it to operations and production. Often, if a product doesn’t have a champion it won’t be approved.
MARKET RESEARCH & INSOURCING/OUTSOURCING DECISIONS

Time is a valuable commodity in the private sector, and speed to the market represents significant competitive advantage. With this motivation, the private sector invests heavily in agile, iterative design processes. Similarly, market research is viewed as a critical, enduring activity and not a just-in-time effort.

1. **Going to market & minimally acceptable products.** In the private sector, products are developed in response to current customer demands. For example, a product manager may conduct market/customer research (e.g. attending trade shows, conducting focus groups, online research) to understand what the customers want now and then work with the engineers to understand what can be built now. Ultimately, private companies go to market with a minimally acceptable product that addresses the primary needs of the consumer at that point in time. Thereafter, companies will solicit feedback from consumers and iterate new versions of the product. In the assessment of several BENS Members, some government acquisition projects can suffer from scope creep because the customers are left out of the decision-making process, or are several steps removed. By developing market requirements (what the customer needs), prioritizing those requirements, and going to market with a product that addresses the highest priorities, companies can reduce the cost, time, and risk associated with a longer-term research and development effort.

In order to determine market requirements and minimally acceptable products, the type of research that is being undertaken must be defined. Applied R&E is very different from long-term or “blue skies” R&E. Companies must decide when to make incremental improvements or take transformational leaps. They do this by collecting information on various factors, including: the current market conditions; current customer demands vs. projected customer demands; the state of the competition; etc. Some companies have a head of strategy, who is responsible for long-term R&E, and a head of business development, who is focused on shorter-term practical ventures.

2. **Purchased research.** Companies must decide what research to outsource and what research to insource. Often, the scale of the business can influence that decision (e.g. a modest airline with a small fleet of 777s would probably not insource the maintenance), as can determining whether the product or service is core to the company’s mission. In those
cases where the scale does not warrant insourcing the R&E, private companies purchase research from commercially available sources, which can reduce the risk (and possibly the cost) of developing it internally. In essence, many companies do not evaluate whether they are able to build a product or system; rather, they consider the time to market and whether that product or system can be acquired or adapted at lower cost, less risk, and shorter time to market.

Many companies use commercial off the shelf technologies and create customized add-ons for specific clients or tasks. This is frequently cheaper than developing a one-off solution (e.g. software platform) and can be easily upgraded. As several BENS Members observed, however, larger prime contractors in the defense space—who are essentially system integrators—do not have incentives to use off-the-shelf solutions. In all cases, once a decision is made whether to insource or outsource R&E, that decision is periodically reviewed and reassessed in light of changing information.
Data without purpose or relevance is immaterial. It is important in any undertaking to determine what information is valuable in the process of making identified decisions, and subsequently to take steps to collect that information in an efficient manner. Often, organizations record different information than what the culture values, and this has the potential to be detrimental in the long run.

1. **Agreement on data.** Organizational agreement on data is rooted in a company-wide understanding of how data feeds into the metrics used to evaluate progress toward the overall business mission. A company generally charts major initiatives, organizes them into objectives and milestones, and then picks a set of metrics by which to measure the company’s effectiveness in meeting the initiative over time. The process of developing this is often overseen by a steering committee and is regularly reviewed by all levels of leadership. Reporting is key, and is facilitated from bottom to top. BENS Members cited financial data, time, KPI, market demand, manufacturing or asset base assumptions, investment performance, and employee surveys as key data points. Customer feedback is also incorporated into future planning. Predictive data was highlighted as a method to determine lifecycle costs. For example, the airline industry predicts maintenance through consistent data collection, which ultimately lowers the cost of flying.

2. **Data governance.** In the private sector there are clear data governance processes which inform how data is collected and used. Importantly, these processes are not static, but are constantly reevaluated and continuously improved to ensure that the data being collected is valid, is collected and recorded in a meaningful manner, and feeds into clearly defined objectives. Based on BENS Member feedback, in general there are five aspects of data governance:
   - Clear uses for data are established and linked to metrics, which are driven by business goals and used to establish benchmarks.
   - These metrics are transparent and agreed to throughout the organization. The reason that each data point is collected is clearly articulated through written protocol.
   - IT departments are frequently responsible for the storage, protection, security, and availability of data.
   - Data is kept consistent, frequently through the use of data governance committees, and is reviewed regularly. This constant evaluation ensure that the data being collected remains valid and linked to meaningful objectives.
   - Reports are often validated by field experts and market researchers to avoid misinterpretation.
RECOMMENDATIONS FOR ACTION

RECOMMENDATION 1
Establish and publish both a clear business case, as well as achievable implementation plan.

RECOMMENDATION 2
Encourage an honest, progressive definition of risk be promulgated and embraced by stakeholders at all echelons.

RECOMMENDATION 3
Reconsider the level at which—and process whereby—disputes between the new Undersecretary-level offices will be resolved.

RECOMMENDATION 4
In collaboration with executive, senior, and mid-level leadership, establish and communicate Key Performance Indicators for each reimagined organization.

RECOMMENDATION 5
Develop mechanisms for real-time feedback during both the reorganization process, but also growing period of each new organization.

RECOMMENDATION 6
Create mechanisms that encourage the Department to articulate the risk or resource thresholds under which employees are empowered to make decisions.

RECOMMENDATION 7
Encourage entrepreneurial behaviors and the application of agile, iterative processes to develop capability with open architecture.

RECOMMENDATION 8
Require generic evaluation criteria for make/buy decisions.

RECOMMENDATION 9
In the R&E cycle, establish criteria for terminating a make/buy decision based upon an ever evolving market.

RECOMMENDATION 10
Establish cross-functional teams at the executive level to evaluate all programs early in the process and make decisions regarding the progress of a program from one phase line to the next.

RECOMMENDATION 11
Consider the viability of assigning program “champions” to remain with a program throughout its life-cycle from R&E through deployment.

RECOMMENDATION 12
Consider the development of a data campaign plan and governance process. Think through and communicate what data is to be collected, when, by whom and by what mechanism, as well as for what purpose. This process should be reevaluated periodically.