INTRODUCTION

The Defense Alliance membership consists principally of small, high technology businesses and has a vested interest in better connecting its innovative products and services to DoD Science & Technology needs. A great deal of this innovation is not accessed by the DoD due to access and process challenges for small businesses. The following is an overview of these challenges, and recommendations to address them. Defense Alliance welcomes the opportunity to provide additional input for this critical need.

CHALLENGES / RECOMMENDATIONS

1) **Challenge:** Small businesses are often restricted from access to DoD requirements because of the lack of individual and/or facility security clearances – or simply because they are not part of a known or trusted group of technology providers in a particular industry sector. Change will require that DoD make hard choices and stepping over the lines that have become perceived as impenetrable walls, when they need not be so; and be more open to accessing and trusting previously unknown sources of innovation, particularly where it resides, among small businesses. With regard to classification, the JUONS and STIPLs and other needs have become classified mainly because they are seen to reveal perceived military weaknesses that an enemy could exploit if known. In almost every case, the enemy is exploiting these because they already know them. While some information needs to be treated as sensitive, the need to find viable solutions may override the need for secrecy.

Recommendations:

a) Use a non-attributable third-party technology search mechanism: One example is the Air Force Research Lab's use of the website www.yet2.com. This is a technology clearinghouse portal that enables multiple industries (including defense) to market new technologies, and market for solutions to existing requirements. Technology needs for DoD are not connected to the application itself.

b) Use existing online portals but allow greater information flow: Examples include:

1. DoD TechMatch (www.dodtechmatch.com)

2. Defense Innovation Marketplace (www.defenseinnovationmarketplace.mil)

3. GovWin (www.govwin.com): operated by the private firm Deltek, this tool is similar to FedBizOpps, but has more functionality and connectivity behind it, allowing linkages to research and business partners, online technical assistance, etc.

c. <u>Provide security clearances and enhanced access to trusted technology scouts</u>: Entities such as MilTech and TechLink are excellent, long-standing examples. The three Advanced Defense Technology Clusters (ADTs) operated by the SBA area also a good resource, and have a four year-plus proven track record of success in finding and vetting technologies. These partners could be more systematically read-in to existing DoD needs in order to match them to technology providers within their networks.

d. <u>Work to de-classify much of the content that exists for JUON, STIPL and other calls for technology</u>: a simpler process, more understandable to civilian market-oriented small businesses is the Non-Disclosure Agreement (NDA). A DoD agency could be treated just like a civilian customer in this regard, and expect that same legal protection provided in that context.

2) **Challenge:** <u>Small businesses are not generally "marketed to" directly by the DoD</u>. Procurement officials have to instead rely on small businesses to find and embrace the market on their own, and to develop critical relationships over time. As a result, many innovative companies are not discoverable by the DoD.

Recommendations:

a. <u>Set up a series of conferences in multiple cities around the country</u>: This can be done through high technology private partners that already run conferences (in order to defray cost), but ideally it would be DoD-initiated in order to illustrate the high level of need. A multi-city approach would demonstrate the government's seriousness about engaging with small businesses and finding solutions for critical warfighter needs. The conferences could also be geared to ensure that commercialization paths for DoD needs are marketed alongside the defense application in order to illustrate potential market share for small businesses. The events could have restricted attendance (NOFORN), and attendees could be required to sign statements agreeing not to share sensitive information with anyone outside their own organization, or foreign nationals within their own organization. A model for this could be the "Beyond Phase II" conference that is held each year, which includes one day for general overviews of special needs and requirements, and a second day for scheduled individual meetings between the attendees and government/military specialists to discuss specific needs and conceptual approaches in more depth, and delving into more sensitive information as required.

There are two recent examples for this type of activity:

1. OSD conducted a small business conference in 2012 for the OECIF (Operational Energy Capabilities Improvement Fund). The conference was useful in connecting APC Member businesses to OECIF and other energy-related technology contracting and R&D opportunities, and in part to showcase all three ADTs to the OECIF network and other attendees. .

2. The 2015 DoD SBIR Road Tour, which sending a team of SBIR program experts to 20 locations around the U.S.

b. <u>Work with partners not traditionally embraced by DoD in order to market needs among new industries</u>: Examples include state economic development authorities, regional high technology alliances, chambers of commerce, major research universities, and non-defense industry trade associations and clusters – where member companies may have adjacent technologies that would fit DoD applications.

3) **Challenge:** <u>Technical needs often come with unclear requirements, constantly shifting requirements, classified requirements, politically-driven policy priorities for which the services are not adequately funded, or even no requirements whatsoever</u>. Lack of specificity and un-funded requirements from the customer is something that private, small businesses have no patience for given the risks and costs involved with developing business in markets that are not well defined. The recent years' trend of worsening clarity and delays on the status of, and procurement for, major DoD program funding has further exacerbated this situation. Numerous companies in the Defense Alliance membership have forsaken DoD contracting, or left the market, because of this.

Recommendations:

a. <u>Ensure that all STIPL, JUON and other such stated needs include specific requirements</u> that are defined as to their "shelf-life," (thereby guaranteeing how long a small business can assume a standard would be acceptable to DoD) and are technically defined in ways understandable to civilian industry.

b. <u>Work to match policy goals at the OSD level to service funding authorizations</u>. The most recent example are policy goals for reductions in DoD operational and facilities energy use that are not matched by programmatic funding, adequately – or in some cases, at all.

c. <u>Improve communication to small business on major program funding</u>: While political realities will likely not mean improvement in how major programs progress, small businesses are constantly left guessing about their status, and are often at the mercy of select communication from major prime contractors to their suppliers. DoD should provide publically-available program status updates to help alleviate this issue.

4) **Challenge:** <u>The DoD procurement process is hopelessly complex, and burdensome from an administrative and legal perspective</u>. The real and perceived costs and distractions associated with doing business with the federal government, particularly compliance, chases away many more small businesses that it attracts and retains. There is also a lack of trust leading to excessive auditing, especially on small contracts; and audits often stop work on a program for months, even on minor things such as accounting technicalities.

Recommendations:

a. <u>Move to more streamlined procurement and funding vehicles</u>: Examples include:

1. Rapid Innovation Fund: The RIF is noteworthy in its novel use of a tiered and simplified approach to vet interested vendors for specific needs; and for its significant late-stage funding (up to $3 Million). Initial inputs from small business are unclassified, and brief – a simple, brief white paper and single quad chart.

2. Other Transaction Authority (OT - http://www.fas.org/sgp/crs/misc/RL34760.pdf) could be more widely used to speed the transaction and ease the burden of contractual requirements.

b. <u>Modify the Mentor-Protégé Program</u>: The mentor-protégé program has been used effectively for years by the DoD to bring small businesses up to speed from a process and quality standpoint. Large prime contractors act as mentors for their preferred and DoD-approved subcontractors. However, this program is only available to disadvantaged businesses, thereby disqualifying the vast majority of potential technology suppliers. Removing this restriction could attract more innovative small businesses to the market, as larger prime contractors could help to defray the costs with getting up to speed on technical and administrative requirements (Note: OSD Office of Small Business Programs says that it has forwarded this request to the legislature for the 2016 NDAA).

c. <u>Modify the ITAR regulatory process</u>: While the Defense Alliance supports the need to secure vital U.S. technology for domestic purposes, the process for ITAR compliance is time-consuming and costly. These costs should not be sustained by small businesses, and obtaining an ITAR license should be a relatively quick process – not the weeks or months involved today.

d. <u>Provide for ready and affordable access to third party verification/validation testing</u>: Many small businesses do not understand how their technology should be tested for a specific defense application; nor can many afford the costs associated with this testing. Better knowledge of and access to federal labs at little or no cost, or use of private testing whose costs can be billed to the government in the validation process would encourage much more small business participation.

e. <u>Radically reduce the legal requirements, and terms and conditions required on contracts</u>: Compliance with even simple contracts is often hopeless confusing and burdensome for small businesses. Recent DCAA response to compliance failures has been to educate businesses on requirements (Defense Alliance has hosted DCAA twice for training sessions); but DCAA is often as confused with the FAR as the IRS is with the tax code. The ultimate answer is to reduce requirements and accept the risk; the outcome would be far less cost for the government, even if abuses rose as a result.

f. <u>Reverse the trend for more detailed and frequent auditing of small businesses</u>: The time and costs associated with increased government oversight and auditing, while understandable thanks to recent abuses by GSA and other agencies, is debilitating for small business. Enhanced trust will not only lower costs, it will also attract the best technology partners for DoD in the long run.

g. <u>Remove the set-aside requirements for disadvantaged businesses from all government contracting</u>: These statutory requirements, while not a large percentage of mandated government procurement, have caused a perception among small businesses that these quotas are the first thing on the minds of

procurement officials. While that may not be true, perception is often reality, and many small businesses elect not to jump in the game with a customer that appears to value fairness over quality and value.

h. <u>Turn to existing government initiatives that are already looking for ways to streamline processes</u>: One example is the Chief Technology Officer (CTO) of the U.S. Todd Park (<u>tpark@ostp.eop.gov</u>). This individual is part of White House Office of Science & Technology Policy, and is applying lean startup principles (as developed by Eric Ries and others – see <u>http://theleanstartup.com/principles</u>) to government processes (<u>http://www.govtech.com/pcio/Governments-Take-a-Lean-Startup-Approach.html</u>) through use of entrepreneurial experimentation and measuring outcomes.

5) **Challenge:** <u>The SBIR / STTR program is not meeting its full potential to access innovation for future requirements (and in some cases medium to near-term requirements), and to ensure a higher level of commercialization success for its total program portfolio</u>.

   Recommendations:

a. <u>Encourage contracting agencies (especially DoD components) to budget and plan for (at least) three Phase I SBIR/STTR awards per topic</u>. This encourages greater diversity and innovation, where higher perceived risk can result in higher pay-off results. In the past, the Army averaged 1.4 Phase I awards per topic, which resulted in the public perception of "wired" awards that still haunts the program today. In practice, managers having budgets for just one Phase I award act to reduce their perceived risk by selecting applicants better known to them. With three Phase I awards per topic, newcomers with very innovative approaches are more likely to get the opportunity to prove their feasibility.

b. <u>Encourage contracting agencies to budget and plan to more frequently award two Phase II contracts per topic</u>. The NAVAIR SBIR program (under Carol Van Wyk) often selected two Phase II performers, in order to fund a low-risk, moderate payoff outcome, along with a higher-risk, high potential payoff outcome, which served program purposes, and U.S. interests, very well.

c. <u>Limit the number of proposal submissions per company for each solicitation</u>. NSF has used this approach for the last few years, with just two proposals per company allowed per solicitation, to discourage so-called "proposal mills" while encouraging applicants to focus on topics of greater strategic value and commercial potential. Results of a recent study of the commercial outcomes of 4,524 completed Air Force Phase II SBIR/STTR awards (The Air Force Contribution to our Economy via SBIR/STTR: 2014 Economic Impact Study – currently pending release) indicated that companies with only four or fewer total SBIR/STTR awards (Phase I and II, all agencies) on average achieved five times the commercialization results per AF Phase II award ($10M) than companies with 100 or more total SBIR/STTR awards (one company has over 1,500 total SBIR/STTR awards).   Four out of the top five major successes were to companies with four or fewer total awards.

Anecdotal reports have indicated that a few companies with large numbers of SBIR/STTR awards that voluntarily limited their proposal submissions to focus more on topics of strategic value have found their

success, and profits, increase significantly. Writing a winning proposal is usually as much a factor of communications skills and past writing experience, as it is based on innovative technology ideas and R&D commercialization capabilities. Commercialization of new technologies is known to be a difficult, resource-intensive business effort, and companies that spend a significant percentage of their technical manpower developing new proposals, and conducting ongoing R&D, would be hard-pressed to devote the required resources needed for successful commercialization.

Note: limiting the total number of awards is not a viable option, as renaming and reorganizing an existing company to be legally eligible for new awards is a simple work-around option.

d. <u>Continue to expand Phase III contracting opportunities, and support activities</u>. The Navy has long had the most successful Phase III program, starting with topic selection based on known programmatic needs and procurement budgets, and continuing training and support for awardees going beyond Navy applications (through the Navy Opportunity Forum). The Rapid Innovation Fund (RIF) has also been of tremendous value for transitioning SBIR/STTR technologies to meet priority military needs. A dedicated corps of Contracting Officers and Procurement Managers specifically trained in small business needs and SBIR/STTR contract law would be especially helpful.

SUMMARY

There is much that DoD can do, together with its traditional and non-traditional partners, to streamline the mechanisms involved with DoD access to innovation. Most of the recommendations herein are over-simplified, and many would require change in federal statute. But real change in this arena will not be attained with an iterative approach to the current, complex systems in place. As one of the SBA's Advanced Defense Technology Clusters, the Defense Alliance is eager to do what it can to bring whatever change is needed. The end result will be to enhance the speed and degree of innovation that can be brought to bear for our warfighters.

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