

More Innovation, Better Results

# Prizes and Challenge-Based Acquisition

Federal acquisition traditionally follows a lengthy, serial process that generates megabytes of documentation in response to gigabytes of regulations, policies, and directives. Mission needs are translated into technical requirements, then into system specifications and contract deliverables. The end result is often a single performer being funded to develop a solution that meets the minimum specifications. Broader innovation is stifled, and private sector competition focuses on writing the best proposal rather than developing the best solution. Many times, prizes and challenge-based acquisition (ChBA) are a better approach.

## A Case for Action

Despite the best efforts of federal programs to mitigate risk through verification and validation using the systems engineering process, even a perfectly executed research project can still produce a result that is "late to the fight," operationally ineffective, or unsuitable, even if it addresses the RFP's stated requirements. When this happens, agencies are back at square one, as only a single contractor was selected to perform and fulfill the government's requirements.

Furthermore, most contracts are awarded using government source selection evaluations based on industry paper proposals rather than "actual" product performance. This creates an incentive for industry to produce flawless documents with highly optimistic cost, schedule, and performance projections that meet RFP requirements. As a result, performance during program execution often falls short of the government's expectations, and cost and schedule overruns become nearly inevitable.

Challenges and prize contests differ from traditional development activities that fund participants for their time and materials. Federal resources are instead devoted to developing an infrastructure and/or awards that incentivize external parties to devote their own resources to overcoming the stated problem or addressing the capability sought. Challenge and prize

competitions, when developed and managed properly, can induce significantly more innovation than would otherwise be possible through the implementation of traditional acquisition strategies and approaches. The concept is not new, but its usage within innovation programs and as part of the federal acquisition process has rapidly increased over the past several years.

Merging the prize and challenge concept directly with the federal acquisition process is also feasible and has already proven successful in a limited number of case studies. The incoming Trump administration can further refine and embrace ChBA as a better way to incentivize and leverage the private sector to solve national problems for both defense and civilian agencies while simultaneously enhancing the effectiveness of federal research programs.

## Understanding the Problem

Governments and private organizations have used incentive prize and challenge competitions for centuries to encourage radical innovation in technology and solutions to particularly difficult problems. Implementing an incentive prize or challenge competition requires: 1) a description of a problem set; 2) clearly defined assessment criteria for evaluating proposed solutions; and 3) an incentive for participation based upon predefined evaluation criteria. Incentives may be monetary in nature, such as

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a cash prize or contract award, or non-monetary, such as public recognition for the prize or challenge winner. What is not required is the current norm for federal acquisitions: a predefined solution or development process, both of which can unnecessarily constrain the solution space.

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**“How can the DoD acquire capabilities both faster and better? The answer includes expressing requirements in terms of general capabilities rather than firm specifications and encouraging industry to respond with applicable product development and innovation that demonstrates best-of-breed solutions.”**

—THE PARTNERSHIP FOR PUBLIC SERVICE,  
INNOVATION IS A CONTRACT SPORT, FEBRUARY 2016

Science (COMPETES) Act of 2007 provides additional authority for government agencies to engage in high-risk, high-reward research in areas of critical national need. In pursuit of this work, the COMPETES Act specifically calls for the increased use of incentive prize and challenge competitions as one means of encouraging the development of cutting-edge solutions.

After executing an incentive prize or challenge competition under the COMPETES Act or other authority, the government often wants to purchase and field the winning solution(s) but may not have the ability to do so expeditiously. Reasons for the

inefficient transition from prizes to procurements include differing interpretations of the current Federal Acquisition Regulations (FAR), Agency-Specific Regulations, and/or Other Transaction Authority by program managers and contracting officers, as well as the overall methods by which incentive prize and challenge competitions are structured, executed, evaluated, and documented. When these two factors are combined, transitioning an incentive prize or challenge competition result to a government procurement becomes inefficient and arduous.

### **Areas of Opportunity for the New Administration and Agency Leaders**

ChBA takes the government-endorsed prize challenge concept a step further by designing it to be a part of the procurement process from the beginning. When properly managed, the strategic use of a challenge competition as an input to a follow-on acquisition satisfies federal acquisition competition and evaluation requirements simultaneously, allows the government to pay vendors for participation, and enables focus on successfully demonstrated outcomes rather than unproven proposals. The Trump administration can further expand federal use of the ChBA approach by:

- Encouraging federal agencies to assess the ChBA approach as a potential alternative to standard acquisition approaches
- Providing updated guidance and training to federal contracting officers on how ChBA is supported within the FAR
- Further encouraging a federal community of interest to share lessons learned and to offer support to participants in establishing future ChBAs

*For further ideas about applying the guidance in this paper to your agency's particular needs, contact [federaltransition@mitre.org](mailto:federaltransition@mitre.org).*