U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND

ACQUISITION INNOVATION AND OTHER TRANSACTIONS

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MISSION:
Provide best in class, actionable, innovative acquisition and assistance agreement solutions to US Army TARDEC and its external customer organizations.

VISION:
Acquisition Innovation Defined
What this Briefing Covers

Standard Approach
1. Requirements Development (Solution)
2. Market Research
3. Synopsis
4. RFP
5. Source Selection
6. Award

Federal Acquisition Regulations & Associated Supplements

Acquisition Innovation Approach
1. Define the Problem
2. Market Research
3. Publication
4. RWP / Panel Pitch
5. Negotiation
6. Award

Section 804 Rapid Prototyping & Rapid Fielding

15 USC 3724
15 USC 3715
10 USC 2374a | 10 USC 2371
10 USC 2371b | 10 USC 2373
Defining the Problem and Performing Market Research

15 USC 3724 - Crowdsourcing and Citizen Science
15 USC 3715 - Use of Partnership Intermediaries
Crowdsourcing and Citizen Science

Crowdsourcing - method to obtain needed services, ideas, or content by soliciting voluntary contributions from a group of individuals or organizations, especially from an online community.

Citizen Science – A form of open collaboration in which individuals or organizations participate voluntarily in the scientific process in various ways, including—

(A) enabling the formulation of research questions;
(B) creating and refining project design;
(C) conducting scientific experiments;
(D) collecting and analyzing data;
(E) interpreting the results of data;
(F) developing technologies and applications;
(G) making discoveries; and
(H) solving problems.

This searchable database provides a government-wide listing of citizen science and crowdsourcing projects designed to improve cross-agency collaboration, reveal opportunities for new high-impact projects, and make it easier for volunteers to find out about projects they can join.

15 USC 3710a
Partnership Intermediary Agreement (PIA)

Partnership Intermediary Agreement (PIA): An agreement between the government and an intermediary organization to perform intermediary services.

Partnership Intermediary: An agency of a State or local government, or a nonprofit entity that assists, counsels, advises, evaluates, or otherwise cooperates with small business firms or institutions of higher education, to provide services for a Federal laboratory.

PIA Services

- **Innovation Hubs** – Leverage tools & resources in an “open door” environment under one roof
- **Prize Challenges** – Invite the public’s help to solve perplexing mission-centric problems
- **STEM** – Host challenges & events
- **Shark Tanks** – Compete & pitch ideas
- **Technology Sprints** – 3 to 14 days event attacking a problem, speeding up decision making process
- **Technology Accelerator** – “Boot camp” consisting of workshops & mentorship
- **Technology Incubator** – Business, government & academic resources providing counsel

15 USC 3710a
**Partnership Intermediary Examples (DoD)**

**TechLink**
- Sources and pre-screens technology from DoD labs for marketing by PIA Network
- Serves as focal point to labs for licensing
- Helps other PIAs and their clients to develop high-quality license applications and commercialization plans

**MILTECH**
- Assist DOD Labs, DOD R&D efforts, to include DOD procurement organizations, with manufacturing expertise,
- Assist DOD Labs, DOD R&D efforts, to include DOD procurement organizations, with technology scouting
- Act as a Lab’s, PM’s, PEO’s, or a command’s “Honest Broker” with industry and vendors

**TechLink**
- Technology transition
- Technology transfer Innovation & Collaboration
- Workforce development (current & future, STEM)
- Concept prototyping

**NAVSEA Warfare Centers CRANE**
- Technology Transfer/Commercialization and Collaboration:
- STEM: Collaborative camps, curriculum writing for state educational requirements
- Educational Partnership Agreements
Hacking Problem Sets, Market Research, and Soliciting Solutions

Problem Defining and Refining Resources

10 USC 2374a - Prizes for advanced technology achievements

Solicitation Methods

H4D #AIRS Challenge.gov
Resources for Defining and Refining Problem Sets

**H4Di**
- Hacking 4 Defense
- University-sponsored class that allows students to research Department of Defense problem sets
- Government problem sponsors partner with the nation’s top students, solving national security issues with lean business practices.
- Sponsors guide their students while they rapidly create and deploy solutions.

**#AIRS**
- Acquisition Innovation Road Show
- Coaching, mentoring, training, and direct acquisition support to Department of Defense activities.
- "Transaction Intensive Management Events (TIME)" to assist acquisition teams in defining problem sets and match acquisition approaches.
- Training to Govt and Industry on alternative authorities for Federal Procurement

**MD5**
- National Security Technology Accelerator
- Frame problems and provide innovation tools (Education).
- Collaborate with non-traditional partners and venture community to identify solutions (Collaboration).
- Adapt solutions through public funding or dual-use venture (Acceleration).

**DIO**
- Defense Innovation Unit
- Embedded engagement with Silicon Valley
- Translating DOD problem sets into actionable problems, easily translated to commercial solution providers
- Pioneered use of Commercial Solutions Opening as Solicitation method
Soliciting for Solutions (DOD Examples)

**Commercial Solutions Opening**
- Competitive solicitation process pioneered by Defense Innovation Unit (DIU) and Army Contracting Command New Jersey (ACC-NJ). The CSO is a three-phase process: Phase 1 is an evaluation of company solution briefs. In Phase 2 companies pitch to the government and provide additional detail. Companies invited to Phase 3 submit proposals to be negotiated with the government.

**Annual Plan Call for WPs Consortium OTA**
- Competitive solicitation process in which the Government identifies broad topic areas for investment, along with current Government capability gaps to a consortium of companies. In response industry submits white paper solutions for further development, negotiation, collaboration and award.

**Broad Agency Announcement**
- Agency announcement with Peer or Scientific Review for the acquisition of basic and applied research and that part of development not related to the development of a specific system or hardware procurement. Issued annually to solicit meaningful proposals with varying technical/scientific approaches.

**DARPA Prize Competition**
- Competitions among individuals, private industry, academia, and Government stakeholders, requiring them to submit solutions in response to a defined problem set. Challengers are incentivized through the use of monetary or non-monetary rewards.
Prize Challenges

Prize challenges are: Competitions among individuals, private industry, academia, and Government stakeholders, requiring them to submit solutions in response to a defined problem set

- Challengers are incentivized through the use of monetary or non-monetary rewards

Purpose: To increase the attention on the problem set and help to diversify the vendor pool for proposed solutions beyond the traditional Government industry partners

Previous Challenges:
- Longitude and ship navigation
- Lindbergh's transatlantic flight
- Designs for the U.S. Capitol and White House
- Cost-effective clean water systems
- Gunshot detectors
- Robots that can set up life support on Mars

Launches in 2010, Challenge.gov allows federal agencies to crowdsource ideas from the public and solve problems with thinkers and doers from any neighborhood and field of expertise. Since 2010, the U.S. government has run nearly 1,000 challenges and offered well over $250 million in cash prizes for the best ideas.

10 USC 2374a
Recent /Current DOD Prize Challenges

DARPA Launch Challenge
Anywhere. Anytime. The DARPA Launch Challenge seeks to demonstrate flexible and responsive launch capabilities in days, not years, for our nation’s defense.

Don’t Blow It! Safely Eliminating Chemical and Biological Weapons on the Bay
Access Disable Destroy

DARPA Subterranean Challenge
Create breakthrough technologies and capabilities for underground operations.

Army xTechSearch
The Army is seeking innovative, paradigm-breaking technologies from the nontraditional defense community to support modernization priorities.

$2,180,000 IN PRIZES
Open Until: 01/01/2019
Research, Experimentation, and Prototyping – Getting on Contract

10 USC 2371 - Research projects: transactions other than contracts or grants

10 USC 2373 - Procurement for experimental purposes

10 USC 2371b – Prototyping: transactions other than contracts or grants
Federal Research Authorities
(Other than Contract, Grant, or Cooperative Agreement)

10 USC 2371
Research OT
- For basic, applied, and advanced research projects
- 50/50% Cost Share (to the Extent Practicable
- Used where contract, grant, or cooperative agreement are not “feasible or appropriate”
- Custom IP negotiated at arms length
- No FAR/DFARS or DODGARS

10 USC 2371
Technology Investment Agreement (TIA)
- For basic, applied, and advanced research projects
- 50/50% Cost Share (to the Extent Practicable
- Used where contract, grant, or cooperative agreement are not “feasible or appropriate”
- Standard IP provisions
- No FAR/DFARS but DODGARS does apply

10 USC 2373
Purchase for Experimentation
- For purchase of ordnance, signal, chemical activity, transportation, energy, medical, space-flight, and aeronautical supplies, for experimental or test purposes
- Purchase quantities are limited to the amount necessary for experimentation.

10 USC 2371b
Prototyping OT
- For prototyping directly relevant to DOD mission
- 1/3 Cost Share or significant NDC participation
- Custom IP negotiated at arms length
- No FAR/DFARS or DODGARS
10 USC 2371b - Other Transaction for Prototype (The 3 P’s)

- **Purpose**: Directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense, or to improvement of platforms, systems, components, or materials in use by the armed forces.

- **Prototype**: A proof of concept, model, reverse engineering to address obsolescence, pilot, novel application of commercial technologies for defense purposes, agile development activity, creation, design, development, demonstration of technical or operational utility, or combinations of the foregoing. A process, including a business process, may be the subject of a prototype project.

- **Participation**:
  - (A) There is at least one nontraditional defense contractor or nonprofit research institution participating to a significant extent in the prototype project.*
  - (C) At least one third of the total cost of the prototype project is to be paid out of funds provided by sources other than the federal government.

*The current definition of NDC means nearly every Small Business qualifies as an NDC. Significant extent generally describes: supplying a new key technology or product, accomplishing a significant amount of the effort, or in some other way causing a material reduction in the cost or schedule or increase in the performance.
Prototyping, Production, and Fielding

Section 804 (FY2016 NDAA) – Middle Tier of Acquisition for Rapid Prototyping and Rapid Fielding

10 USC 2371b – Prototyping: transactions other than contracts or grants
Prototyping, Production, and Fielding

Section 804

Rapid Prototyping
- Use innovative technology to rapidly develop fieldable prototypes to demonstrate new capabilities and meet emerging military needs.
- Must field a prototype that can be demonstrated in an operational environment; and
- Provide for residual operational capability within 5 years of an approved requirement

Rapid Fielding
- Use proven technologies to field production quantities of new or upgraded systems with minimal development required. The objectives are:
  - Begin production within 6 months
  - Complete fielding within 5 years of an approved requirement

Program Management Tools
- Not subject to JCIDS and DODD 5000.01

Prototyping OTA
- For prototyping directly relevant to DOD mission
- 1/3 Cost Share or significant NDC participation
- Custom IP negotiated at arms length
- No FAR/DFARS or DODGARS

Production OTA
- follow-on production contract or transaction, authorized where: (A) competitive procedures were used for the selection of parties for participation in the transaction; and (B) the participants in the transaction successfully completed the prototype project provided for in the transaction.

10 USC 2371b
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