

SPECIAL **EXTENDED** ISSUE ON

Innovation

NCMA Board Chair **Heather Gerczak** shares her vision for the upcoming year



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Special Issue on Innovation

You will notice this issue is longer than normal and that is thanks to the enthusiastic and overwhelming response from our community. In this issue, we delve into the transformative power of innovation, exploring the people, processes, and initiatives that help drive change and propel us into the future.

FEATURES

A.5 B.2 C.3

14. Culture of Innovation: The Evolution

If we are wedded to the way things were done in the past, we will pay a heavy price. Now is the time to embrace new ways of thinking, a new culture of speed and agility.

BY JASON KORMAN

A.5 1.4 1.6 C.3

18. A New Age Approach to Contracting for ARPA-H

Leaning into leadership vision, unique structure, and maximum flexibility to achieve mission success.

BY DIANE SIDEBOTTOM AND STEPHEN SPECIALE

A.1 B.5 1.2 C.1

30. Turning Vision into **Reality: Transforming Innovation Definitions into Actionable Policies**

By strategically aligning innovation policy with acquisition policy, governments and organizations can create fertile ground for technological advancement and drive progress.

BY DOLORES KUCHINA-MUSINA PH.D., PPCM, CFCM, CF APMP, NCMA FELLOW

A.5 B.1 1.5 C.1

36. SBIR Phase III: From Concept to Commercialization

Moving technologies from concepts and prototypes to commercialization is essential to continuing innovation. Some recommendations for improving commercialization under SBIR Phase III should be considered.

BY STEPHANIE LEMAITRE, PMP

A.3 1.2 C.2

42. Building Innovators

DIU's ICAP Fellows share lessons in leveraging flexible acquisition tools to accelerate commercial technology across DoD.

BY SHAUN BRIGHT, RALPH BARNES, **CHRISTINE DOCKER, BRITTANY** HARRIS. REBECCA LINGENFELTER. AND TIANNA SEAMAN

A.5 B.5 1.4 1.5

50. OTA Accountability: The Cleansing Power of F.I.R.E.

While Other Transactions Agreements offer flexibility, speed and agility, it is essential to maintain transparency.

BY ALEXANDRA GOEBERT

Contract Management Body of Knowledge (CMBOK)® Competencies + Sub-Competencies

Throughout the magazine, you'll find tags denoting relevant CMBOK competencies and subcompetencies covered within each article. Follow the key below to match tags with their corresponding competencies. For more information, visit www.ncmahq.org/cmbok.

A. Leadership

A.1 Competence

A.2 Character

A.3 Collaboration

A.4 Emotional Intelligence

B. Management

B.1 Business Management

B.2 Change Management

B.3 Financial Management

B.4 Project Management **B.5 Risk Management**

B.6 Supply Chain Management

1.0 Guiding Principles

1.1 Skills and Roles

1.2 Contract Principles

1.3 Standards of Conduct

1.4 Regulatory Compliance

1.5 Situational Assessment 1.6 Team Dynamics

1.7 Communication and Documentation

2.0 Pre-Award

2.1 Plan Solicitation

2.2 Request Offers

2.3 Plan Sales

2.4 Prepare Offer

3.0 Award

3.1 Price or Cost Analysis

3.2 Conduct Negotiations

3.3 Select Source

3.4 Manage Disagreements

4.0 Post-Award

4.1 Administer Contract

4.2 Ensure Quality

4.3 Manage Subcontracts

4.4 Manage Changes

4.5 Close Out Contract

C Learn

C.1 Continuous Learning

C.2 Individual Competence

C.3 Organizational Capability

DEPARTMENTS



4. DEAR MEMBERS: Embracing Change While Honoring Legacy

WITH HEATHER GERCZAK, CFCM, NCMA FELLOW

C.1 C.2

6. EDUCATION: Get Your Hands on Innovation at **World Congress**

BY SAMANTHA WILLIAMS

10. COMMUNITY ZONE:

Running With Scissors: Seeking New Solutions by Daring to Fail

WITH KRISTINA BOTELHO

How to Write for Contract Management Magazine **BY GRACE RHODES**

C.1 C.2

58. CLAUSE CORNER: The Liberty Ship -The 'Ugly Duckling' That Saved Britain Simple steps can reduce risk in an innovation project. As demonstrated by the Liberty Ships in World War II, these steps led to 2,710 new ships and 52 million tons of shipping capacity. These steps can also help deliver results for your acquisition.

BY IRVIN GRAY, JD, MBA, LLM, CPCM, CFCM, CCCM, **NCMA FELLOW**

C.1 C.2

62. SUSTAINABLE PROCUREMENT: Celebrating 50 Years of the Office of Federal Procurement Policy The OFPP has vastly improved economy, efficiency, and effectiveness in acquisition processes during the past half century. Its work continues with a focus on promoting a more sustainable future.

BY CHRISTINE HARADA AND PORTER GLOCK

C.1 C.2

67. COUNSEL COMMENTARY: Stay in Control Participants in the Small Business Innovation Research program must know how to navigate the negative control and ostensible subcontractor rules to maintain eligibility.

BY STEPHEN L. BACON

C.1 C.2

70. LEG/REG UPDATE

CONTRIBUTED BY DENTONS LLP US

1.2 2.1 C.1

72. LOOKING BACK: Just Say, 'Make It Fly' BY WILL ROBERTS



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Embracing Change While Honoring Legacy



Heather Gerczak, CFCM, NCMA Fellow

NCMA Chair, Program Year 2025

NCMA is proud to welcome **Heather Gerczak**, **CFCM**, **NCMA** Fellow as the Board Chair for Program Year 2025. To learn more about her plans for the upcoming year, NCMA Chief Executive Officer Kraig Conrad, CAE, CTP interviewed Gerczak in early May.

The following interview has been edited for length and clarity.

Kraig Conrad: Congratulations Heather on being board chair this year! You've had an impressive career and are well respected in our community, but for those who don't know you, could you tell us a little bit more about yourself?

Heather Gerczak: Thank you Kraig. Serving the government mission – the American mission - is in my family. We come from both a military service and a government contracting background, so it's phenomenal that I've been able to give back and serve the community in this way. I have a long history with NCMA. I was a Contract Management Leadership Development Program (CMLDP) graduate in 2010, but my career really started on the civilian side of contracting – all in industry. After a few years, I transitioned into some of the larger defense contractors: General Dynamics Information Technology and PAE Inc. (now known as Amentum). My current role at Integral Federal, Inc. revolves more around business operations, but it's been fun.

Conrad: As one of the youngest chairs in NCMA history, what unique perspectives

or approaches do you think you'll bring to the role?

Gerczak: Along with diversity of age, I bring the experience I've garnered from watching the profession develop throughout my career. When I first started, technology was a tool that sat on your desk. We just had standalone computers, but now we are taking a critical look at technology and how it can be leveraged to drive business.

These changes in technology have also brought about important developments for our members. If you recall in your first year as CEO, Kraig, we were talking about how to meet our members where they are and present flexible options for our events at every scale. The solution was not one size fits all. Today, whether members want to meet in person or if they want to attend virtually, we have all those options available. There is something for everyone.

This also speaks to where we've been as an association, where we're going, and seeing both perspectives. At NCMA, we strive to honor both the past and the future of the profession. We especially appreciate the people that have made our progress possible. **Conrad:** Given the challenges we face, of which many of us are aware, certainly, what is your vision for the future of the profession? How do you plan to work with the community to realize NCMA's vision?

Gerczak: We will always have workforce challenges, be it the number of people available to do the job or the training they receive. But we're really looking at how we can broaden the definition of contract management, and how we can provide more opportunities and training. When people have experiential learning, they're more portable in their jobs; they can move into supply chain or pricing or contract management.

NCMA has also really become the place for commercial training because we understand the difference between industry-industry and industry-government relationships. We occasionally reach out to our members to ensure our standards are aligned with the actual jobs and tasks our professionals are performing in their day-to-day lives. The NCMA Standards Consensus Body conducts the job task analysis, and we ask for everyone's help and participation. This will be sent to your email.

Conrad: A call to action there for our members. Make sure you fill out the job task analysis survey coming soon to your mailbox.

Drawing from your extensive background in large defense contracts, how can NCMA help support the workforce and the implementation of the back-to-basics framework, Defense Acquisition Workforce Improvement We will always have workforce challenges, be it the numbers of people available to do the job or the training they receive. But we're really looking at how we can broaden the definition of contract management and how we can provide more opportunities and training. When people have experiential learning, they're more portable in their jobs; they can move into supply chain or pricing or contract management.

Act (DAWIA) and Federal Acquisition Certification in Contracting (FAC-C) program.

Gerczak: NCMA has taken huge strides to globally elevate the profession through its common language initiative. When we all agree on and use common terminology, it frees time for us to focus on more complex tasks. It is essential that we are included in the entire workforce, including industry.

Ensuring our certifications count towards DAWIA and FAC-C Professional certifications helps NCMA members with portability, so they easily transition into government and/or out of government and into industry. NCMA has three certifications accredited by the American National Standards Institute (ANSI) National

Accreditation Board (ANAB). We'll continue to help the government understand the value industry perspective can bring and vice versa.

Conrad: Wonderful. So, this coming year, our strategic theme is broadened. We just kicked off the inaugural NEXUS event, a quintessential part of our strategy that aims to connect professionals across acquisition functions to get contracts right the first time.

With your contract management background and your current role overseeing multiple departments, how do you envision events such as NEXUS to be able to bridge those gaps?

Gerczak: NEXUS was great, and it was a great start in building collaboration across the broader community. We will continue to expand the

conversation to include more diverse teams and more industry teams. We'll focus on bringing acquisition functions that are related – but not necessarily contract management – to interactive workshops so we can work together as a team. We really want to encourage participation from industry teams.

Conrad: This is one of our very favorite questions to ask. What advice would you give to those who are early in their careers and looking to gain competency?

Gerczak: Engage with your professional association such as NCMA, build your network of like-minded professionals, and take advantage of the leadership opportunities that NCMA offers, such as the CMLDP and the new Executive Leadership Program for mid-career professionals.

Conrad: Finally, Heather, what are some of the things you look forward to as chair?

Gerczak: I'm really looking forward to continuing the Common Language Initiative and to seeing our contract management standard become a global standard through our partnership with the World Commerce and Contracting Association (WorldCC). We believe we are truly well-positioned to unite contract management practices and elevate the profession of contract management, including purchasing and procurement. I am looking forward to embracing the future while honoring our past as the PY25 board chair. CM

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5

Get Your Hands on Innovation at World Congress



Samantha Williams

NCMA Senior Director, Learning

A few of the topics being livestreamed from Seattle

- From Protests to Prison: Avoiding Conflicts of Interest
- · Getting Your Money's Worth Through Intellectual Property Negotiations
- Got Tech Dragons to Slay? We've Got Secret Acquisition Weapons!
- Keynote: Positive Chaos: Using Uncertainty to Fuel Opportunity and Innovation
- · Combating Chip Shortages and Counterfeits in Aerospace & Defense
- Optimizing Teaming Agreements to Minimize Risk Between Prime Contractors and Subcontractors
- · Making CMMC 2.0 Requirements Work for Your Organization
- · Burned Out Employees Rarely Make Their Numbers
- · Mastering Cloud Acquisitions: Policy to Practice
- · Supply Chain Compliance: What to Watch, What to Do
- Closing Keynote: How to Be More Interesting Than a Cell Phone
- Executing World Class Market Intelligence
- · Source Selection Evaluations and Productive Debriefing

In just a few short weeks, the entire profession will convene in Seattle July 21 to 24, 2024 for its 25th World Congress. As always, innovation and new ideas underlie the topics in the event agenda and the formal and informal conversations on how we are getting things done.

Tech Alley

This year's event will feature an all-new Tech Alley in the exhibit hall featuring a Tech Alley stage showcasing artificial intelligence (AI) and emerging technology use cases from industry and government and a Tech Alley Lab where you'll get the chance to try out some of the solutions.

Want to see how AI and automation can help you complete a weighted guidelines form? Write contracts in under 15 minutes? Draft price negotiation memo? Game plan your negotiation? Analyze compliance risk? And make data-based decisions? Attend a Tech Alley session in the exhibit hall or try out these strategies and more to inspire new solutions to take back to your organization.

Al in Acquisition Day

World Congress will also feature an AI in

Acquisition Day on Sunday, July 21, just before the main event. This add-on event comes with 5 Continuing Professional Education credits and is a unique opportunity to dive into how AI is shaping acquisition.

The event features morning session options geared toward AI newbies seeking to gain insight and get up to speed and others geared toward more intermediate and advanced learners driving AI strategy and buying decisions in their organizations. After lunch, interactive workshops will provide an opportunity to practice using or buying AI.

Focus on Your Next Steps in the **Career Corner**

This year's exhibit hall will feature a new Career Corner, which includes a career fair

Al in Acquisition Day Sessions			
9 to 10	Al in Federal Acquisition: Getting Started	Responsible Al: Navigating Risk and Opportunities for the Enterprise	
10 to 11		Driving Al Strategy	
11:15 to 12:15	Uncovering Bias in Artificial Intelligence	When in Doubt, Go Faster: Industry- Government Relationships in the Age of Al	
1:15 to 3	Workshop: How to Buy AI (Five Reasons Your AI Project Will Fail)	Workshop: Artificial and Natural Intelligence for Requirements Development and Source Selection	

NCMA recognizes the dedication, effort, and expertise of those who recently obtained their NCMA certifications. Please congratulate them and mark this important milestone in their careers. The following list includes newly certified professionals whose official certification dates occurred between April 1-30, 2024. Learn more about the NCMA Certification Program at www.ncmahq.org/certification.

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spanning Sunday evening and Monday morning with more than 18 companies looking for fantastic candidates and on-site career coaching, resume reviews, interviewing tips and more.

Henry Taylor, CCCM

Whether you are actively seeking your next role or are settled in your current role, the Career Corner will have something to help you define and prepare for your next steps. Hiring managers and organizational leaders will also find value in resources designed to help you

shape your job descriptions and recruitment efforts to attract the incoming workforce.

Allan Masuda, CCMA

Register Today

Register for World Congress at worldcongress.ncmahq.org/. Add the AI in Acquistion Day to your registration by selecting the All-Day Training option.

Join the Virtual Event

If you cannot make it to Seattle

this summer, you can participate in World Congress by registering for the virtual event, which includes 28 livestreamed sessions plus three inspiring general sessions. See the list on page 6 for a sample of the live-streamed sessions.

Hampton Roads

Registering for the virtual event provides access to the recordings, which will be available for 60 days following the event, so you can still get all the great content even if you cannot join live the week of July 21. CM



THE CHALLENGE OF STAYING COMPLIANT with the myriad cybersecurity and supply chain risk management (SCRM) regulations can seem daunting for government agencies. I want to reassure our government contract professionals that we are committed to simplifying this process, taking much of the burden off your shoulders, and ensuring that GSA's contracts for procuring IT solutions address and incorporate the laws, regulations, and standards required for federal IT purchases to improve our nation's cybersecurity.

THE FOUNDATION OF OUR EFFORTS

GSA Office of Information Technology Category's (ITC) mission has always been to provide federal agencies with access to innovative IT solutions that are both cost-effective and compliant with the highest standards of cybersecurity and supply chain integrity. Recognizing the significance of these challenges, we have taken decisive steps to integrate compliance into the very fabric of our offerings, making it a seamless aspect of the procurement process for our stakeholders.

CYBERSECURITY: A PROACTIVE STANCE

The Executive Order on Improving the Nation's Cybersecurity (EO 14028) has set a new benchmark for cybersecurity practices across federal agencies. In response, ITC has been at the forefront, not only

aligning our contracts with these enhanced standards but also pioneering initiatives that anticipate future cybersecurity needs. Our continuous collaboration with the Cybersecurity and Infrastructure Security Agency (CISA) is a testament to our proactive approach. The development of resources such as the Application Security Testing (AST) buyer's guide is just one effective example of our collaboration with CISA. These resources are designed to support the Biden Administration's Zero Trust Strategy, enabling agencies to more effectively validate the security of their systems and applications against burgeoning cyber threats.

SUPPLY CHAIN RISK MANAGEMENT: STRENGTHENING THE LINKS

Understanding the complexities of SCRM, we have dedicated significant resources to bolstering the supply chain security of the ICT products and services available through our contracts. The establishment of the Cybersecurity-Supply Chain Risk Management (C-SCRM) Division is a cornerstone of this effort, reflecting our commitment to integrating C-SCRM best practices into the acquisition process. Our collaborative approach with suppliers ensures not only compliance but also the advancement of C-SCRM capabilities within the vendor community, thereby enhancing the overall resilience of the federal ICT supply chain.

SIMPLIFYING COMPLIANCE THROUGH INNOVATION

At GSA, we recognize that the path to compliance can be as important as the destination itself. To this end, we have embraced innovative tools and processes that demystify compliance for our agency partners. For instance, our use of Vendor Risk Assessment tools and the development of resources such as the Zero Trust Architecture Buyer's Guide, are initiatives aimed at providing clear, actionable insights into the compliance status of IT solutions, simplifying the procurement decision-making process.

Moreover, our efforts to prepare for the post-quantum cryptography era exemplify our forward-looking stance, ensuring that our contracts remain at the cutting edge of security and compliance standards. This not only addresses immediate regulatory requirements but also prepares our government partners for the cybersecurity challenges of tomorrow.

COLLABORATION: THE KEY TO SUCCESS

The complexity of compliance cannot be understated, nor can it be tackled in isolation. Our achievements in simplifying compliance have been made possible through extensive collaboration with federal agencies, industry partners, and regulatory bodies. This collective effort has enabled us to refine our contracts, ensuring they offer not just IT products and services; but are

themselves comprehensive compliance solutions that meet the evolving compliance needs of our government partners.

A COMMITMENT TO CONTINUOUS IMPROVEMENT

As we look to the future, I want to reaffirm our unwavering commitment to taking the complexity out of compliance. The digital landscape will continue to change, as will the regulatory environment. However, what will remain constant is our dedication to providing our government partners with the tools, resources, and support they need to navigate these changes confidently.

To our valued government contract professionals, know that you can count on ITC to provide IT solutions that are not only innovative and cost-effective but also compliant with the latest regulations. Our goal is to ensure that you can focus on your mission-critical objectives, secure in the knowledge that your IT procurement needs are in capable hands.

Together, we will continue to forge a path toward a more secure, resilient, and compliant federal IT ecosystem.

To learn more about GSA's Professional Services, use this QR code.



Cybersecurity Supply Chain Risk Management

From Tools to Compliance:
Complete Security, No Compromises





Running With Scissors:

Seeking New Solutions by Daring to Fail

An interview with Kristina Botelho, USAF CO/AO

Editor's Note: Throughout her career, Kristina Botelho has made it her mission to help meet the need to leverage all acquisition pathways to help meet the mission. Not many people would take it upon themselves to help multiple agencies and individuals understand the acquisition and innovation landscape, and even fewer would do it on top of their daily workload. Botelho's unique experience at Kessel Run and continued creative approach to government contracts in the Air Force has positioned her to be one of the leading contract professionals in the government contracts space. For this special edition of the magazine, we interviewed Botelho to learn more about her career journey and what lessons-learned she can share with others in her field.

How did you get involved supporting the innovation ecosystem in the Department of Defense?

My contracting career began about 15 years ago. I have always been the type of person to question the way we did things and why we did them that way. I was never afraid to say, "We can do better, or we should try something different."

That mindset really helped when I got my first taste of innovation in 2016 helping to stand up Kessel Run. The team I worked with at the time really went outside the boundaries of traditional acquisitions and program execution, employing an Other Transaction Authority (OTA) leveraging non-traditional defense contractor and using oral and video presentations for competitive acquisitions.

Fast forward to a few years later when I volunteered to execute an end-of-the-year, expiring funds, Small Business Innovation Research (SBIR) Strategic Funding Increase (STRATFI) action for AFWERX and the Assistant Secretary of the Air Force (Acquisition, Technology, and Logistics) (SAF/AQ). That effort threw a lot of curveballs and we had to change strategies several times to make an award in less than 30 days, but we succeeded!

This experience led to opportunities such as training non-acquisition airmen on acquisitions, supporting several innovation events, providing training, and advising Spark Cells on acquisitions, and sometimes even advising other contracting units.

During this time, I also took on the role as the Innovation/SBIR Contracting subject matter expert (SME) for my Directorate, which grew into a position on the Hanscom Innovation Team. For the next two years, this was an ongoing "side hustle" while I still worked in a traditional program office managing a billion-dollar program.

I'm eternally grateful to my then-leadership for trusting me to balance it all and empowering me to be able to "run with scissors." Eventually, a career broadening opportunity came up to support Innovation at Hanscom. This was right up my alley, so I applied and was selected.

If you could share a success story in the last few years, what would it be?

My favorite success story is how I came to support the Blue Horizons Fellowship. While attending a conference, my friend introduced me to a group of airmen looking for a contracting officer who could answer some questions about a particular contract. Immediately I wanted to help, which apparently surprised the airmen because I was the first one who said yes to that question, which got them very excited. In fact, they were so excited they immediately started scrambling to display it. One had it on his phone and another said, "Bring it up on the laptop; don't make her look at it on that phone!"

While the cost for support was not in their small budget, I continued to provide pro bono contract execution

support. At the time, I thought I was simply helping some airmen with their school projects; I had no idea they were part of the Air Force Blue Horizons fellowship. I quickly learned the Blue Horizons fellowship is part think tank, part incubator. The fellows receive an annual research question and, after a 10-month fellowship culminating in tangible prototypes, they present their solutions directly to the Chief of Staff of the United States Air Force. Graduates are then strategically placed in high impact positions; these fellows are our future Air Force leaders.

Until we met at that conference, they relied entirely on existing contract vehicles they could just send funding to for support or people like me willing to help. As you can imagine, this model was hit or miss. Now I provide them with acquisition support every year, while working on a more permanent solution. These airmen are very smart, and I learn so much helping them with their projects, not to mention how unique and innovative their projects are and the challenges they have in bringing their ideas to fruition.

What advice would you give to others in the innovation ecosystem to help them work more efficiently with the authorities and pathways available to them?

There are so many things I would advise. Knowledge of the *Federal Acquisition Regulation (FAR)* and other policies and regulations is the first step. Once you have the foundation, be open to doing things differently and question everything. You should

never accept, "That's the way we've always done it," as an acceptable answer to a question. Have courage, take risks, and build strong relationships within your team.

Next, I would advise people to know your requirements, understand the technology (at least from a layman's perspective) because that will make you a better business advisor. You will know what questions to ask and be able to develop strategies specifically geared toward the success of that technology development. To be able to apply all your knowledge of policies, regulations, and requirements, you first and foremost need to go into it with the right mindset and understand your audience.

Lastly, I would say that we need an environment that encourages change, innovation, new ideas, and taking risks. As individuals we must be of that same mindset, embracing change, looking for innovative ways to solve problems, taking smart risks and not being afraid to fail. Once failure becomes acceptable, it is freeing; it brings down a lot of barriers and presents new pathways to solving problems. No one wants to fail, and we should not be reckless in our approach to risk, but we do not need to work in a world of absolutes and certainty of success. That is why contracting officers often say, "The perfect contract is one modification awav."

What would you say is the "coolest" aspect of your role?

I have always loved contracting, but *actually* experiencing the impacts of contracting on the mission and

the warfighter is awesome. Working in a program office with a singular mission focus, we are insulated from everything else happening around us. We are always told we make an impact on the mission, and at a superficial level we know that's true, but we rarely get to experience the truth behind that statement. In my role, I have the privilege of working directly with end-users, seeing projects from start to finish, and seeing firsthand how I'm making an impact.

The people I have had the privilege of meeting and working with on these projects are all very smart and I learn so much from them. It's true that surrounding yourself with people smarter than you will make you better. I'm constantly learning

new things and coming up with new approaches to contracting. I look back on some of my documents and honestly cringe a little bit, but then I think about why and it's because I've grown and developed so much over the years.

What is your favorite authority or pathway to leverage?

Currently I'm a fan girl of Commercial Solution Openings (CSOs) because they offer so much flexibility in terms of what you can get after using streamlined procedures. It is not restricted to *FAR*-based contracts, so if an OT agreement is more appropriate, then you can award those. Tradewinds Solutions Marketplace is a great example of how CSOs can be employed to meet compe-

tition requirements, find solutions, and get a contract award fast. I would love to see other organizations implementing similar marketplaces focused on their mission sets.

What do you do to unwind?

First, I check out Contracting Memes
Center of Excellence for any new posts
for a good laugh. Once I am caught
up, I will probably grab a book to
read ... usually split between Dean
Koontz books or, if I am a real glutton
for punishment, it will be something
on contracting or other innovative
technologies like artificial intelligence or autonomy. If I really need a
break from it all, I will head up to the
mountains and camp with friends for
the weekend.



How to Write for Contract Management Magazine

By Grace Rhodes, CM Magazine Publications Specialist

Carpe diem: Seize the opportunity to share your insights and submit your article proposal for Contract Management magazine today!

s NCMA's flagship publication, the lifeblood of *Contract Management* magazine is our authors who generously share their insights.

With our easy-to-use Article Proposal Submission Form, found on our website at www.ncmahq.org/magazine, it is now easier than ever for new and returning authors to submit their article proposals for the magazine.

For those interested in writing, we offer the following synopsis of the different types of articles we publish and the publication process for your consideration.

Community Zone Articles

The newest writing opportunity, the Community Zone, is an area dedicated to highlighting the happenings of the community. Perhaps you or a colleague has done something noteworthy you would like to highlight. Draw from your day-to-day experiences, write about the "unspoken" topics of contract management, think about what you might like to read from someone else's perspective and push the needle in that conversation.

Length – 500 to 1,250 words.

Examples – This piece and the preceding piece on page 10 with Kristia Botelho!

See also "The Revolving Door" and "Clued in for Successful Post-Award Execution" by Rita Lanouette and Kimberley Langston, respectively, from the June 2024 issue.

Column Articles

A happy medium between our Community Zone articles and a full feature, column articles present a more traditional opportunity for aspiring CM authors to write on a topic without the length requirements of a full feature. We accept monthly columns that span several issues and represent an interesting series or regular commentary for our readers on a theme or topic that is regularly evolving. Column submission may also be a one-month contribution to an existing column.

Length – 1,500 to 2,500 words.

Examples – This month's Sustainable
Procurement article, "Celebrating
50 Years of the Office of Federal
Procurement Policy," on page 62.
See also, "A New Tool to Help Avoid Bid
Protest Pitfalls" from our April 2024
Innovations column and "Building
Blocks Are Not Just Toys," from our May
2024 Al in Practice column.

Feature Articles

The core of *Contract Management* magazine is our features. The key question to think about with a feature topic is "So what?" In other words, what is the purpose of the feature? When evaluating proposals, we look for those that reevaluate a previous way of thinking, introduce a new framework, start a new conversation, etc.

Length – 2,000 to 4,000 words.

Examples – All of the wonderful features in this issue!

Overview of the **Publication Process**

- Complete the Article Proposal Submission Form on our website (www.ncmahq.org/magazine).
- Publications team confirms receipt and will either request an introductory call or a first draft for review.
- After your draft is received, our team and the Editorial Advisory Board (EAB) will review fit, relevance, and slating availability.*
 - If your article is slated for a specific month, we will provide a schedule of deadlines.
- First round of edits is provided, and a call is scheduled to review feedback.
- Following the submission of the second draft, the team reviews and may request additional edits.
 This step repeats as many times as needed.
- Once your edits are finalized, we request any graphics and figures as separate attachments and submit all materials to our publisher.
 - Publisher will provide a draft with any copy edits and the final article layout for your approval.
- 7. Authors complete a copyright release form prior to publication.
- Finally, once the issue prints, you
 will receive a physical copy of the
 magazine for you to frame and
 share with your friends and family
 and a digital edition for your social
 media channels such as LinkedIn.

*Proposals are reviewed on a rolling basis. Slating is subject to availability. NCMA reserves the right to edit or reject any materials submitted for publication.

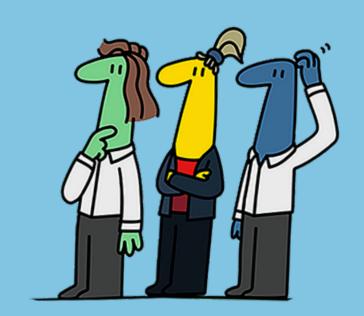




CULTURE OF INNOVATION

THE EVOLUTION

If we are wedded to the way things were done in the past, we will pay a heavy price. Now is the time to embrace new ways of thinking, a new culture of speed and agility. By Jason Korman



ustrian economist Joseph Schumpeter argued that the path to growth is destroying the old to create something better.1 He called it "creative destruction." It is an evolutionary cycle of forward development; a beneficial process that promotes innovation.

In their 2012 book, "Why Nations Fail," Daron Acemoglu and James A. Robinson argue that countries

stagnate and decline when ruling parties prevent creative destruction. In the private sector, innovation is elusive.2 It progresses in large part because promising new ideas attract capital and go through a crucible of trial and iteration until they are proven or discarded.

Statista reports that in 2021, U.S. venture capitalists invested over \$345 billion, which was twice the

amount of the previous year.3 This was a record high in venture capital investments and a trend that has been hard to beat. Last year, the United States saw a significant dip in venture capital investment in part due to the failure of Silicon Valley bank, and other factors, resulting in deal values nearly \$177 billion below the record levels achieved in 2021.4 That leads to the question, "Why?"

For the reason described in "Why Nations Fail," public sector innovation is different since bureaucracies are designed for the stable execution of work and the efficient administration of rules. Many, if not most, bureaucrats sign up to support the status quo. They cultivate a "no-fail" environment, which means risk is anathema to the system.

Marina Nitze and Nick Sinai address this challenge in their book, "Hacking Your Bureaucracy: Get Things Done No Matter What Your Role on Any Team," the authors discuss at great length that understanding risks and incentives is pivotal in solving challenges and in understanding human behaviors.

Future Vision Affects Behavior Today

In his book, "Be Your Future Self

Now," Dr. Benjamin Hardy argues that people are "pulled forward by the future we're most committed to."⁵ For most people, that future is murky, beset by unanswered questions: Are we seeking a future that is the same as the past? Are we safe to continue in much the same way? Are we at risk if we don't change how we operate?

How we view the future impacts what we do today. Shifting our connection to the future changes how we act in the present.

Acknowledging existential risk is uncomfortable but has driven some of our greatest innovations. The sense that life might get worse if we do not figure out a complex problem has, throughout history, catalyzed dramatic progress. The question is, "Can we motivate the same progress without the catalyst of existential risk? If so, how?"

Designing the Future

The most common gold-standard behavior-change models have a core tenet that calls for motivating people to change. Dr. BJ Fogg, the founder of the Behavior Design Lab at Stanford University and author of "Tiny Habits: The Small Changes that Change Everything," notes, "Behavior happens when motivation, ability, and a prompt come together at the same moment."

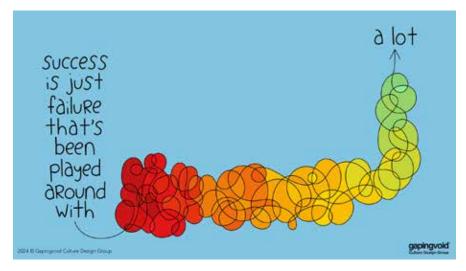
Importantly, Dr. Fogg also notes that "information alone does not reliably change behavior. This is a common mistake people make, even well-meaning professionals. The assumption is this: If we give people the right information, it will change their attitudes, which in turn will change their behaviors. I call this the 'Information-Action Fallacy.'"⁶

The bedrock of change is first answering the question, "How can



we design an environment where people feel motivated to care enough to consider behaving differently?" For some people, the fuel for motivation is pre-installed in their brains, and all they need is a spark, like a worthy project, to ignite it. For others, motivation is extrinsic. They must be drawn into action through external drives.

Designing an environment that motivates people is a key responsibility of leaders, but it is not something taught in school. It is often overlooked and undervalued. However, all human transformation begins with motivating people to understand that it is possible to do



something differently. Motivation drives transformation and innovation. But all too often,

this is neglected.

It is certain that rules and regulations need to be overhauled,

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but even if that is done, the harder question will be whether acquisition professionals will feel motivated to adopt a new mindset that values speed over preserving the status quo. Regardless of new rules, people are deeply wedded to doing things the way they have always done them. No matter what indicator is used, the goal is to uncover the latent mindsets that guide the actions of the people in an industry; in other words, to answer some key questions about the industry's culture.

How Is Innovation Possible?

The conventional way of looking at innovation is through the lens of ideation, incubation, funding, and iteration. But, for any of this to be successfully executed, the organization must have the correct cultural norms. If it does not, few ideas will find funding, many of those that do will be random ideas proposed by charismatic actors, and the cultural antibodies will hunt down any new idea and annihilate the project.

The tyranny of the status quo is, in fact, tyrannical. This brings us back to the pacing, existential threat. It is only when the threat is looming that it becomes unpopular for the people invested in the status quo to drag their heels. The job of culture is to reprogram the thinking that drives behavior.

Culture is the human operating system. It is based on changing how

teams think about problem-solving. It creates tension to transform people – it is not about polite theoretical conversation. The power of culture is that it can be designed to drive human transformation in the absence of an existential threat. It is the aligning force, it provides the thinking models, and it energizes people who want to change the world. It wakes those interested in change and signals to others that it might be time to find their fulfillment elsewhere.

The threat to democracy and freedom is real, and if we are wedded to the way things were done in the past, we will pay a heavy price. Now is the time to embrace new ways of thinking, a new culture of speed and agility.

Jason Korman is CEO of Gapingvoid Culture Design Group, based in Miami, Florida. Gapingvoid specializes in the design and execution of organizational cultures based upon its proprietary Culture Science® methodology.

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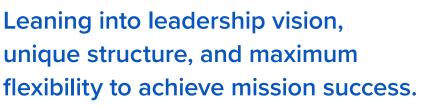


POST ABOUT this article on NCMA Collaborate at http://collaborate.ncmahq.org.









By Diane Sidebottom and Stephen Speciale

hat do you get when you combine exceptional contracting professionals, visionaries, creative thinkers, and problem solvers dedicated to supporting the development of high-impact solutions to society's most challenging health problems? You get the Advanced Research Projects Agency for Health (ARPA-H).

This federal government agency is rapidly pursuing innovative solutions to advance health outcomes and paving the way for lifesaving treatments for all. The stakes couldn't be higher. The race is already underway as ARPA-H creatively collaborates with performers to foster research on promising technological breakthroughs that cannot be accomplished through traditional means.

ARPA-H has accomplished many feats since its inception in March 2022, but has much more in its plan to transform healthcare. Its exceptional personnel, unique structure, and leadership approach enable an environment with maximum flexibility relative to available contracting authorities.

This article highlights the health ecosystem and shares information for other government entities, new or existing, to be innovative with contracting approaches and maintain efficient and effective business operations necessary to achieve mission success.

The Health Ecosystem and ARPA-H's Role

The health ecosystem comprises all entities involved with health-related products and services. The ecosystem is an interconnected network of healthcare providers, research institutions, government agencies, technology developers, and patients working to improve health outcomes and advance health innovation. Research and development (R&D) is critical to the health ecosystem. ARPA-H is uniquely positioned to accelerate innovation across the health ecosystem through transparency and enhanced access. The agency invests in innovative strategies and

technologies in key areas of medicine - from societal to molecular - to drive progress that cannot be readily accomplished through traditional research or commercial activity. R&D investments in health will lead to extraordinary progress and outcomes against disabling and deadly health threats. This could range from enhancing access and affordability of technologies, accelerating breakthroughs in medical research sciences, expanding efforts resulting in illness prevention and prolonging periods of health and wellbeing, and improving the robustness and adaptability of systems affecting health.

ARPA-H will strive to improve healthcare affordability and access by supporting applied R&D that enables medical technologies to quickly reach a greater number of patients through distributed technologies.

Affordability refers to whether a person or organization has sufficient resources to pay for or provide for healthcare costs. The problem of healthcare affordability is evidenced through the 41% of Americans who reported forgoing a necessary visit to a local emergency department in the last year due to cost concerns.1 An example of health product with affordability challenges would be a breakthrough therapy that costs patients \$2 million per treatment. Even when an individual can afford a health product or service, it may not be accessible.

Accessibility refers to obtaining health care services, including but not limited to prevention, diagnosis, treatment, and management of diseases, illnesses, and disorders. Health care accessibility is limited



ALTHOUGH IT HAS THE AUTHORITY TO AWARD OTHER TRANSACTIONS (OTS), COOPERATIVE AGREEMENTS, GRANTS, CONTRACTS, AND PRIZE CHALLENGES, ARPA-H PRIMARILY LEVERAGES OTS AND COOPERATIVE AGREEMENTS FOR R&D EFFORTS.

by various barriers, including health care resource allocation and poverty. An example of circumstances that might limit accessibility would be a breakthrough therapy that is only available to patients in a few states or involves complex treatments with a lengthy hospital stay.

Affordability and accessibility intersect with health equity – the principle that everyone has a fair and just opportunity to attain their highest level of health, regardless of race, ethnicity, disability, gender, socioeconomic status, geography, or other factors.

For ARPA-H to be successful, it must strategically develop R&D programs and solicitations to maximize interest, leverage flexible and cost-effective projects to the greatest extent practicable, and creatively negotiate terms and conditions that incorporate affordability, accessibility, and equity considerations into those programs.

Alternatively stated, ARPA-H will only be successful if it can demonstrate the impacts of technology advancements and get these transformative health technologies to all Americans.

ARPA-H Growth and Accomplishments and the Role of Contracting

ARPA-H is one of the newest federal government agencies and observed its second anniversary in March 2024. As outlined in the article, "Meet ARPA-H" in the February 2024 edition of *Contract Management* magazine, the agency was created to model the Defense Advanced Research Projects Agency (DARPA) with its focus on improving health outcomes for everyone. Because of its crucial purpose and impact on many Americans, ARPA-H must operate aggressively and creatively while balancing speed and quality.

Although it has the authority to award other transactions (OTs), cooperative agreements, grants, contracts, and prize challenges, the agency primarily leverages OTs and cooperative agreements for R&D efforts.

The agency has received a total of \$4 billion in appropriated funds from Congress from Fiscal Year (FY) 2022 through FY 2024. ARPA-H, by statute,² is limited to a total federal staff of 210, and much of its support is, and will continue to be, provided by contractor support personnel. This allows the

agency to obtain niche expertise across various career fields and immense flexibility via appropriate time commitments and cost-effective options.

By May 2024, the contracting team had a total of 20 federal staff, which included 13 warranted contracting and/or agreements officers. Figure 1 details the contracting team's personnel metrics at various times. Team numbers have increased commensurate with the agency's ramp up with R&D activities within the last year.

ARPA-H's programs are in various stages of the acquisition lifecycle as some are in the pre-award phase and others are in the execution phase. Since the February 2024 *Contract Management* article, the agency launched nine new programs and made awards for programs and other major project initiatives.

Program objectives include making joints heal themselves, giving surgeons tools to make sure no cancer is left behind, treating chronic conditions remotely, fully equipped "hospitals on wheels" to bring hospital-level care to every corner of the United States, curing blindness through transplantation of whole eyes, bioprinting organs on demand, and strengthening the nation's digital health infrastructure to protect against cyberattacks.

Has ARPA-H as a whole and its contracting team been successful since inception? Absolutely. That ARPA-H was able to launch and achieve so much as a start-up is remarkable in and of itself. Launching 15 programs and making awards to geographically diverse businesses and institutions in two years is a

FIGURE 1. ARPA-H Contracting Team Federal Staff Metrics*



*Includes only federal government full-time equivalents. Source: Created by ARPA-H

significant accomplishment.

Figure 2 identifies the states where performers have received ARPA-H awards as of May 2024.

As seen in Figure 2, the agency has made awards of various types to primary performers located in 17 states and Washington, D.C. Although several states include multiple primary performers directly receiving ARPA-H funding, most primary performer efforts involve teaming partners from other states (many of which are not highlighted in Figure 2).

In March 2023, ARPA-H released its agency-wide Broad Agency Announcement (BAA), seeking revolutionary ideas across a wide swath of the health ecosystem. The solicitation, adhering to Federal Acquisition Regulation (FAR) Part 35, served as the main pipeline for interested partners from industry, including small businesses, large businesses, nonprofits, academic

institutions, and minority-serving institutions, to propose innovative solutions to *ARPA-Hard* problems.

The agency closed the agency-wide BAA in March 2024, after receiving more than 1,900 abstracts and proposals from interested parties nationwide during the year it was open. As of May 2024, the agency has made a dozen OT and cooperative agreement agency-wide awards, with a potential value of up to \$474 million, and is still finalizing agreements expected to result in additional awards.

When considering all R&D-related programs, projects, and support, the agency has obligated a cumulative total of \$934 million since inception. Besides the agency-wide BAA, this total reflects program-specific efforts, ARPA-H's health innovation network, partnership intermediary agreements, and Small Business Innovation Research efforts.

As programs began launching in mid-2023, ARPA-H created program-specific solicitations with unique goals, milestones, and shorter open periods than the agency-wide BAA. Shortly after that, ARPA-H started to move away from the *FAR*-based solicitation instruments.

In March 2024, ARPA-H began issuing a new solicitation type called "Innovative Solutions Openings" (ISOs), which are not based on the *FAR* and provide ARPA-H maximum flexibility throughout the acquisition lifecycle. Specifically, ARPA-H issued four Open Office ISOs and plans to use this instrument for future R&D programs to solicit business opportunities.

ARPA-H expects many benefits for its agency and industry in using ISOs

for R&D projects instead of BAAs. These include solicitations that are easier for performers to read and understand, quicker acquisition timelines, customizable evaluation procedures, and additional interest from potential performers that would otherwise shy away from working with the government or *FAR*-based contracts. Industry can expect a more straightforward and user-friendly submission process that more closely resembles commercial contracting rather than federal procurement contracting.

Recognizing that innovation without insight is no innovation, ARPA-H will evaluate these processes by analyzing award data and seeking feedback from industry partners to continuously improve the ISO process.

Another significant accomplishment was ARPA-H's launch of the ARPANET-H health innovation network, which consisted of two hub-and-spoke consortiums: the Customer Experience Hub and the Investor Catalyst Hub. This health innovation network is expected to translate technological advancements and health solutions into accessible, affordable products and services. As of May 2024, the network comprised 603 spoke members with access to the agency's R&D projects, events, and collaboration opportunities.

With spokes in all 50 states, the network includes businesses of all shapes and sizes (including small, large, women-owned, disadvantaged, service-disabled, and veteran-owned),





22

nonprofits, academic institutions, research institutions, health organizations/systems, incubators and accelerators, venture capital firms, and medical technology manufacturers.

The agency's programs and performers can engage with or partner with a diverse group of network members throughout a program or project lifecycle to identify the most appropriate transition options for solutions to become a reality and reach the market and patients.

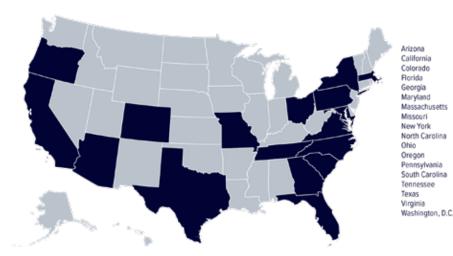
A great example of ARPA-H's unique approach is its Novel Innovations for Tissue Regeneration in Osteoarthritis (NITRO) program. The program's mission is to develop solutions for joints to heal themselves.

Osteoarthritis is a degenerative disease affecting more than 32 million Americans and over 240 million adults worldwide. The condition usually requires extensive surgery and significant rehab and comes with risks such as infection, graft rejection, implant failure, and the need for revision. Its high cost and limited accessibility leave many affected individuals unable even to obtain this surgery.

Aiming to revolutionize regenerative medicine, the program offered three technical areas from which potential performers could submit proposals that best matched their individual approach. ARPA-H designed its award process to move at great speed, launching the program in April 2023, holding a proposers' day event in June 2023, and making five OT awards in March 2024. The program approach attracted significant interest throughout the osteoarthritis community, receiving

FIGURE 2. States Receiving ARPA-H Awards

(Primary performers only; teaming partners and sub-awardees not included.)



States shown in dark shading are receiving ARPA-H awards. Source: Created by ARPA-H

40 abstract and proposal submissions.

A truly innovative approach for NITRO was for performers to develop solutions that are ≤ 25% of the current cost of osteoarthritis treatments.

NITRO's program manager (PM), agreements officer, and other team members closely collaborated internally and externally with potential performers to craft unique OT agreement T&Cs necessary for project success given the program's goals and expected performance metrics.

For example, the agency created unique intellectual property (IP) articles with bulk-buy options.

ARPA-H negotiated a nonexclusive, nontransferable, irrevocable, and paid-up government purpose license in any project-related subject invention. However, the license is conditional and can become transferable if the performer elects to end its commercialization efforts or does not commercialize a solution at ≤ 25% of the current cost of care.

This IP approach by the NITRO

team was seen as incredibly revolutionary within the Department of Health and Human Services. To support affordability, accessibility, and equity priorities, NITRO included bulk-buy options that allow the government to unilaterally exercise multiple options, with staggered pricing, to purchase therapeutic quantities at or below the unit price (based on performers meeting the 25% cost of care affordability metric).

These articles "pull through" beyond the initial period of performance and attach to whoever commercializes the resulting technology, regardless of whether that entity is the initial NITRO awardee.

Additionally, the program requires each performer to include an Equity Officer on its team, define key performance indicators and metrics to ensure equitable research, and include participants from underrepresented and ethnic populations in study designs and clinical trials. While the specifics shared above are unique to

the NITRO Program, ARPA-H intends to continue collaborating with all stakeholders to develop and implement novel and innovative approaches to bring affordable and accessible healthcare solutions to all Americans.

Key Factors Enabling Success

While there are numerous contributing factors, the primary factors enabling success are ARPA-H's leadership's vision and support, organization structure, and reliance on its contracting team as an indispensable contributor to mission success.

First, the agency's leadership team, with experience working in government, academia, and industry, regularly and clearly shares their vision, setting priorities, guiding the agency's direction, and creating impactful mission-focused strategic plans.

Leadership recognizes how excessive bureaucracy can stifle innovation and effective operations. Onboarding and maintaining highly functioning personnel who genuinely support the agency's mission and aggressive goals are necessary.

Leadership regularly refers to its contracting team members as "unicorns" with unique experience, ambition to improve, comfort with risk, and individual superpowers. Further, the leadership team embraces change and the lack of certainty or definitive paths forward. Failure is expected but so are actions to learn and improve.

Second, ARPA-H is a relatively flat organization compared to most CONTINUED ON PAGE 28



Dr. Renee Wegrzyn (ARPA-H Director)

Dr. Wegrzyn, ARPA-H's inaugural
Director, was appointed in October
2022 by President Biden. She previously
served as Vice President of Business
Development at Ginkgo Bioworks,
Head of Innovation at Concentric
by Ginkgo, and a PM at DARPA. She
attended NCMA World Congress 2023 in
Nashville, Tennessee, and co-presented
an Innovation Alley session.

Q. Your career has spanned various positions for various organizations. Based on your experience within industry, what lessons learned have you tried to bring to ARPA-H or replicate, particularly regarding contracting or business operations for R&D?

A. I consider myself fortunate to have worked across three primary areas of health R&D: academia, government, and industry. This has given me a unique perspective on the tensions and opportunities to tackle the biggest problems in health. The impact of ARPA-H will be significant as we aim to move big levers and remove key tradeoffs in the current health ecosystem that limit progress. To achieve this, ARPA-H must closely collaborate and

work with a broad group of stakeholders, from industry to caregivers to patients, to ensure we're solving the right problems and delivering solutions that work in the real world for the American people. Unlike DARPA, which benefits from a clear transition partner (DoD), ARPA-H needs to pave a new road to transition products and capabilities to industry (and at times other government entities) to ensure they make it to patients.

Q. You are the inaugural Director at ARPA-H, but your time is limited based on the term appointment specified within 42 USC 290c. What advice would you share with your successor or other personnel in positions leading organizations where they are forced to balance priorities and initiatives when quality and speed are equally important?

A. Serving as ARPA-H's first Director is an opportunity of a lifetime. My advice is to stay focused and committed to the mission and goals to reach intended outcomes, especially given the number of term-limited roles. PMs, for example, with a 3-year term, lose 1% of their time for every two weeks that go by. For our business operations, we are continuously identifying new ways for industry to work with the government that level the playing field for many non-traditional partners that often are left behind, and we heavily rely on the contracting team to guide programs towards the most reasonable business approaches. While we will pursue excellence in all we do, it's essential to understand that ARPA-H's life-changing successes may not be immediately visible to the rest of the

24

world as programs develop and solutions move into the world.

Q. How would you describe your relationship with the Head of the Contracting Activity (HCA) and other contracting personnel? What progress or successful outcomes have resulted from these relationships?

A. When people think of ARPAs, they often think of our visionary PMs. However, without visionary and creative contracting teams who can translate ideas into contract instruments (with terms and conditions that make the programs a reality), ARPAs would not be successful. I remind our teams every day that we are lucky to have such a talented team, led by HCA Diane Sidebottom, that uses the unique levers and authorities at ARPA-H and shares expertise across the government to help others succeed.

Q. What is your stance on taking calculated risks and failure? How does your approach influence how your contracting team and other teams across ARPA-H operate?

A. As a dynamic entity, we constantly push past conventional limits with a detailed framework to accelerate high-impact solutions to the most challenging health problems. At ARPA-H, technical expertise, insatiable curiosity, and a commitment to diversity and fairness are essential elements of every plan, visionary concept, and organizational priority we establish. I am deeply appreciative to lead such a visionary agency of multitalented people committed to serving the American people.



Dr. Ross Uhrich (ARPA-H Program Manager)

Uhrich, ARPA-H's inaugural Program Manager (PM), joined in February 2023. He is the PM for NITRO, a program addressing osteoarthritis treatment challenges by developing new ways of helping the human body repair its own joints. Dr. Uhrich previously supported Walter Reed National Military Medical Center and the Uniformed Services University of the Health Sciences, where he worked as a Board-Certified Oral and Maxillofacial surgeon and Assistant Professor of Surgery.

Q. In addition to serving as an ARPA-H Program Manager, your experience includes working as a Board-Certified surgeon, professor of surgery, Lieutenant Commander in the U.S. Navy, and surgery consultant to Congress. How is ARPA-H's approach to conducting business and collaborating with potential performers different from or standing out from the other organizations you have supported?

A. I've had the unique opportunity of working in a variety of high-reliability organizations from Walter Reed National Military Medical Center to the USS Gerald Ford. The U.S. Navy

is touted for its ability to succeed despite its high-operational tempo and overall dangerous missions. ARPA-H has been able to replicate many components of high-reliability organizations mainly because it prioritizes substantial investments in biotechnology without a hefty decision ladder. ARPA-H is a rarity in the federal government due to its incredibly lean profile with minimal bureaucracy, enabling PMs to serve like CEOs of ambitious portfolios with a high degree of autonomy. The unique nature of ARPA-H's contracting approaches allows PMs and their teams to bridge the gaps between the government's research investments and industry's agile business portfolio management.

Q. You joined ARPA-H as the first Program Manager for ARPA-H's first official program focused on osteoarthritis and addressing current treatment issues by developing new ways of helping the human body repair its own joints. What makes working at ARPA-H so special, specifically your close collaboration with the contracting team members that resulted in five OT awards?

A. I was fortunate to join ARPA-H in its earliest days with the clear vision of building and launching the NITRO Program to positively impact every American suffering from osteoarthritis. I quickly learned the contracting team could help make my vision for NITRO a reality via unique contracting approaches and instruments. Programs are not built or launched in a vacuum. Instead, they require input from technical, industry, regulatory, and contracting experts. Those con-

tract experts work to create and tailor the language in the ISO/BAA and T&Cs, providing flexibility for stakeholders and enabling performers to accomplish critical, program-related tasks. My Agreements Officer and the incredible contracting team were immensely valuable to NITRO's creation, a technically, commercially, translationally, equitably, and contractually revolutionary program.

Q. Your team efficiently worked with multiple potential performers for the NITRO program prior to awards and negotiated unique intellectual property terms and conditions for the OTs. Can you summarize what your team did and the intended outcomes and benefits

for the performers, ARPA-H, and osteoarthritis patients?

A. ARPA-H's mission statement is to "accelerate better health outcomes for everyone." You cannot accelerate health outcomes without creating revolutionary therapies accessible to all patients suffering from a disease. If we create revolutionary therapeutics that are cost-prohibitive or inaccessible, we won't generate or accelerate better health outcomes. Thus, NITRO sought two concurrent moonshots: a technical moonshot and an accessibility moonshot. Accessibility for NITRO meant reasonable pricing, therapeutic effectiveness, and infrequent dosing. Additionally, after NITRO has concluded, those reasonably priced, revolutionary ther-

apies must still be accessible to all patients impacted by the disease. To achieve success, the team leveraged OTs and collaborated with performers to include the most reasonable and advantageous T&Cs (i.e., reasonable pricing and IP protections) that accomplish NITRO's goals. The team also required performers to ensure demographic distribution for clinical trials matched the distribution of the disease. Lastly, the teams crafted corporate incentives in the form of equitable therapeutic bulk-buy options. To further incentivize investment and industry exit, these equity options allow the government to purchase many therapeutics at full unit price and distribute them to communities in need around America.







Diane Sidebottom (ARPA-H HCA)

Sidebottom is ARPA-H's inaugural Head of Contracting Activity (HCA), joining in June 2023. She previously worked at DARPA as the Senior Policy Advisor and at Defense Acquisition University as the Learning Director for OTs. She has provided training, guidance, and mentoring on properly using government contracts (specifically OTs) within the Department of Defense and multiple civilian agencies.

Q. You have experience working with successful organizations and organizations that failed to launch based on expectations at initiation. What are the key characteristics or differences that led to success?

A. The most significant characteristic of the success of a new organization like an ARPA is its ability to be independent and largely establish its own way of doing business. The success of ARPAs is driven by flat organizational structures with little bureaucracy while focused on high-risk research. They need to be nimbler and more flexible than the average government organization and shouldn't be encumbered with

processes and procedures from other organizations with different types of missions. Independence allows flexibility.

Q. You are the inaugural HCA at AR-PA-H, an R&D-focused organization seeking to transform health outcomes for everyone. What advice or suggestions would you share to help other HCAs, whether they are leading newly established organizations or trying to reform an established organization?

A. This is my second ARPA start-up; each time, it is always a surprise how much foundational work needs to be done. So many of us have worked in organizations created decades ago and we have either forgotten or taken for granted all the work that went into establishing the organization to get it to a fully functional stance. So many people want to jump in, start programs, and spend money, but it's also necessary to take the time to establish that solid foundation so the organization will function smoothly five, 10, or 20 years from now.

Q. ARPA-H has the authority to award procurement contracts, grants, cooperative agreements, OTs, and cash prizes. Why does ARPA-H plan to primarily award OTs and cooperative agreements for its R&D efforts?

A. ARPA-H intends to use all the award vehicle options available but uses them thoughtfully and for the best purposes possible. If you look at the history of the *FAR* and the scenarios it was created to solve, it is very apparent that it was not intended for research and development activities

ARPA-H INTENDS TO USE ALL THE AWARD VEHICLE OPTIONS AVAILABLE BUT USES THEM THOUGHTFULLY AND FOR THE BEST PURPOSES POSSIBLE.

and needs to be better suited to address the unique challenges of those activities. There are other options, specifically OTs, that are much better suited for the unique issues faced in doing R&D awards. This mechanism was created to allow organizations to attract and partner with performers, especially non-traditional performers, doing cutting-edge research. The assistance vehicles also have their uses in the R&D space but program managers at ARPAs like to work collaboratively and be in close contact with the performers. Grants don't allow for that level of involvement and are better suited for lab-based, early-stage, fundamental research. While ARPA-H may do some of that work, PMs want and need the ability to interact closely and regularly with our performers. Cooperative agreements are a much better tool for that kind of relationship.

CONTINUED FROM PAGE 24

government entities. This structure promotes effective communication between all ARPA-H personnel and the leadership team (bottom-up approach). Besides enabling maximum agility and autonomy, the structure allows timely decision making by avoiding unnecessary layers of reviews and approvals for regular business practices.

Third, the leadership team places significant trust in the contracting team. For example, the Director delegated essential contracting-related responsibilities, such as OT approval authority, to the Head of Contracting Activity (HCA). These actions resulted in streamlined processes and avoided unnecessary schedule project delays. The authors interviewed ARPA-H's Director, NITRO PM. and HCA and asked about their leadership strategy and ARPA-H experience. Responses are shared in the sidebar, "Q&A With ARPA-H Leadership Team Members."

The contracting team has also successfully navigated the countless administrative systems and processes required for a relatively new start-up agency. This team's success is tied to the personnel it has onboarded and a collective willingness to take calculated risks. Although the contracting team is comprised of government civilian and contractor support personnel, the HCA has prioritized hiring the people that best fit the agency and team. Specifically, the agreements officers have exceptional business acumen, negotiations experience, understanding of the health ecosystem, and are collaborative and creative.

The team members have diverse backgrounds, from supporting various federal government departments to specializing in OTs, cooperative agreements, procurement contracts, business systems, and policy.

The contracting team's leadership responds to creative ideas with "Why not?" versus "Why?" to promote a culture for welcoming out-of-the-box solutions. Further, the HCA considers dedication and willingness to experiment with new approaches more desirable than talent. By taking calculated risks, the contracting team can remain innovative (avoid the status quo) and best help ARPA-H achieve its mission.

The HCA also prioritizes learning and training, not only for the contracting team members but also for other agency personnel and other government entities and industry personnel. For example, throughout FY 2024, the contracting team has delivered monthly training on topics such as OTs, cooperative agreements, R&D solicitations, value and traditional cost analysis, and IP. Later this month at NCMA's World Congress 2024, ARPA-H will facilitate an immersive OT workshop where attendees can learn to craft OT agreement T&Cs from scratch. ARPA-H also recently launched the "OT Community" to offer a variety of training courses, share resources, and provide outreach opportunities. Anyone interested in the OT Community or joining the ARPA-H

contracting team can visit ARPA-H's website at *ARPA-H.gov* or contact the authors.

Conclusion

"There is no innovation and creativity without failure. Period."

-Brene Brown

Technology will undoubtedly change how patients are treated and medicines are developed. ARPA-H is proactively seeking to advance health innovations to develop novel technologies and ensure they survive in the wild in an equitable, affordable, and accessible fashion.

The goal is not simple, and the expected outcomes will not be easy to reach, but ARPA-H has the best chance with incomparable leadership, exceptional personnel, and a collective willingness to pursue novel contracting approaches while learning from failure along the way.

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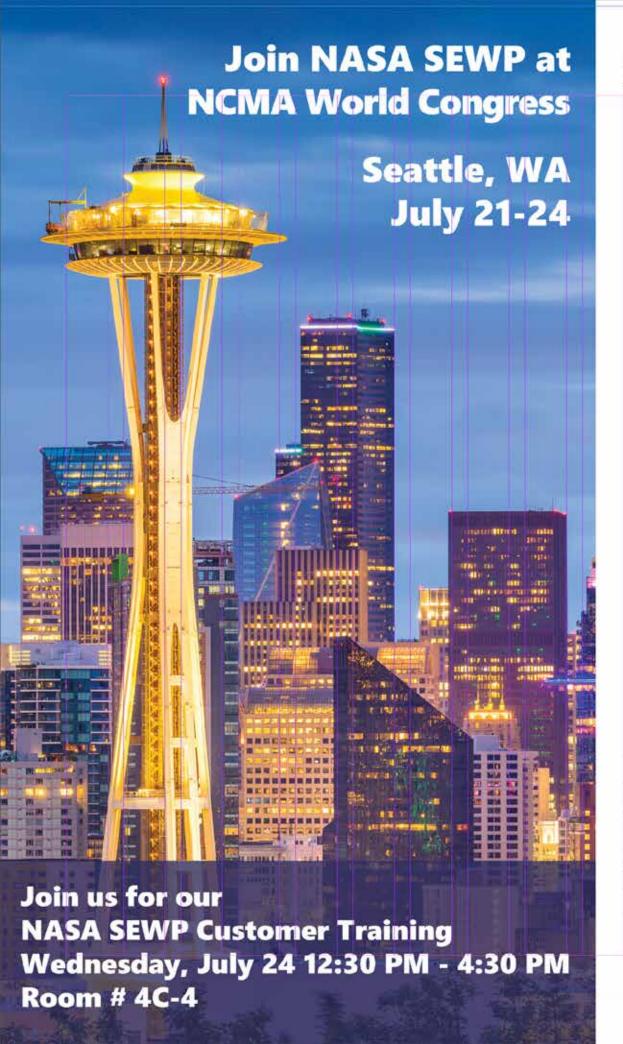
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Turning Vision into Reality: Transforming Innovation Definitions into Actionable Policies

By Dolores Kuchina-Musina Ph.D., PPCM, CFCM, CF APMP, NCMA Fellow

By strategically aligning innovation policy with acquisition policy, governments and organizations can create fertile ground for technological advancement and drive progress.

efining *innovation* has been challenging over the years as it has been used and abused across public and private sectors to become an all-encompassing buzzword. The Oxford Dictionary website states that the earliest known use of the noun *innovation* was in the Acts of Parliament in 1548, but the word's definition was not published until 1900.¹ The last update to the term was in July 2023.

In the dictionary, it is currently defined as a noun to mean the action of innovating, introducing novelties, or altering what is established by introducing new elements or forms. Surveys of academic and practitioner literature on innovation provide their own interpretations of the term,

introducing a variety of definitions that further obscure its meaning.

In 2009, a published study found nearly 60 definitions in different scientific papers, while a 2014 survey found more than 40.2 Based on these studies, the researchers attempted to formulate a multidisciplinary definition as the following:

Innovation is the multi-stage process whereby organizations transform ideas into new/improved products, services or processes, in order to advance, compete and differentiate themselves successfully in their marketplace.³

Even the International Organization for Standardization (ISO)⁴ has its own definition for innovation, introduced in ISO 56000:2020 as "a new or changed entity, realizing or redistributing value."⁵ To make things even more complicated, variations of the term have also been introduced to help better describe the type of innovation, resulting in terms like breakthrough innovation, sustaining innovation, basic innovation, and disruptive innovation.⁶ It is essential to add new variations of innovation, continue to expand, and include additional microlenses on types of innovation such as those shown in Figure 1.

The most popular field of study of innovation is economics and commerce because of its close ties to economic development. However, a new field of study has recently started making its mark in this field of study. Academics from public administration and public policy backgrounds are starting to develop their own work looking at *innovation policy*.

What Is Innovation Policy?

Innovation policy is a new term

FIGURE 1. Types of Innovation

• **Incremental innovation** – Uses existing technology to improve products or services continuously.

Example: When Gillette went from a single razor blade to a double blade and now has six blades. No new markets were created and no new technology was created but it did result in an improved product.

 Radical innovation – Results in the development of new products or services using new technology that opens new markets.

Example: The Magnetic Resonance Imaging (MRI) machine uses magnetic fields and radio waves to generate images of the inside of the body. This new technology generated a new market for hospitals to purchase these machines for new diagnostic capabilities.

 Technological innovation – Uses new processes, supply sources, or knowledge to obtain a product or service.

Example: The Internet and the World Wide Web revolutionized communication and information sharing by enabling global connectivity, transformed how people access and share information, and paved the way for online commerce, social media, and online services.

• Sustainable innovation – Involves innovation that benefits the business, people, and the planet and addresses environmental, social, and governance (ESG) issues.

Example: Tesla's development and production of electric vehicles (EVs) is a prime example of sustainable innovation. EVs reduce greenhouse gas emissions, dependence on fossil fuels, and air pollution compared to traditional gasoline-powered vehicles. This benefits the environment and public health. Additionally, Tesla's focus on renewable energy sources, such as solar panels and battery storage, further contributes to sustainability efforts.

• **Social innovation** – Involves developing new technologies or activities to address social demands more effectively.

Example: Crowdfunding platforms like GoFundMe and Kickstarter have emerged as social innovations, providing individuals and communities with the means to raise funds for various causes, projects, and ventures. This democratized approach to fundraising has enabled countless projects to come to fruition, from medical treatments for individuals to community-based initiatives that address local needs.

 Architectural innovation – Also known as recombination innovation, this involves applying methodologies, technologies, or approaches from one field to a different area

Example: Peloton, a manufacturer of home exercise bicycles, innovates existing bicycle, internet, and communications technology to create new consumers who would not purchase an exercise bike.

• **Disruptive innovation** – Also known as concealment innovation, this involves applying new processes or technologies to a company's current market.

Example: Digital cameras disrupted the photography industry by offering instant gratification and reducing the cost of producing film

 Open innovation – Also known as crowdsourcing, this involves using individuals outside of an organization to solve complex problems.

Example: LEGO Ideas is a platform where fans can submit their own designs for LEGO sets. The most popular designs are then reviewed by LEGO, and some are chosen to be produced and sold as official LEGO products. This allows LEGO to tap into the creativity of its fan base and develop new products that it might not have thought of on its own

and growing area of research in the discussion of the policymaking agenda.⁷ Historically, innovation policy has been called different labels, "such as industrial policy, science policy, research policy, or technology policy."⁸ This definition includes policies that directly support innovation using funding mechanisms such as grants or contracts, or indirectly support programs such as incentive tax programs for the private sector that match private firms' expenditures with public funding.⁹

Understanding innovation policy has become increasingly important. For example, "From the 1970s onward, Douglas North, Robert Thomas, Nathan Rosenberg, and other economic historians argued that innovation was aided by specific government institutions and policies."¹⁰ The decrease in federal funding for research and development (R&D) can be attributed to the actions of federal agencies.

These combined actions of public agencies, whether direct or indirect, are innovation policy because they affect innovation in one way or another. The impact of innovation policy is crucial to stimulate policies that address the challenges of society such as inequality, cybersecurity, and climate change.

The government can direct innovation through effective

innovation policies that utilize grants and contracts with agency-controlled funding.12 The federal government typically uses procurement contracts, which are contracts subject to the Federal Acquisition Regulation (FAR), to procure goods and services. However, innovation policy has also been known to promote alternative contracting vehicles such as what the National Aeronautics and Space Administration (NASA), the Defense Advanced Research Projects Agency (DARPA), and the DoD have done in the past (i.e., Space Race, internet, Global Positioning System (GPS), and Siri).13

As we get closer to the end of the government fiscal year in the United

States, many industry and government agencies are patiently waiting for budget decisions and what new policy will be passed to help promote innovation. This has gotten a lot of attention during the past few years as fewer companies are interested in working with the federal government, making policymakers concerned about innovation and government investment due to the critical nature of technological innovation from an economic and national security perspective.

National approaches to fostering innovation vary significantly, particularly in the context of international competitiveness and national security concerns. In an increasingly interconnected world, technological advancements are paramount for economic prosperity and safeguarding a nation's interests.

One strategy that competitive countries commonly employ is harnessing the power of competition within the private sector. Recognizing that heightened competition in international markets can drive the demand for technological innovation, these countries strategically fund new entrants and leverage their innovative solutions to enhance existing technologies. This approach is particularly evident in cybersecurity, where constant innovation is crucial to defend against evolving threats.

The European Union (EU) exemplifies this approach through its comprehensive innovation policy. As defined by the European Parliament, this policy serves as the "interface between research and technological development policy and industrial policy." It actively fosters an environment conducive to

bringing innovative ideas to market, capitalizing on the ingenuity of its private sector to bolster its competitive edge and ensure national security.

While the United States has not yet established a unified national innovation policy, it also recognizes the importance of competition in driving technological progress. The U.S. National Security Strategy emphasizes the use of public procurement in critical markets to stimulate demand for innovation. This strategy incentivizes domestic companies to develop cutting-edge solutions, fostering a competitive landscape that ultimately benefits both the private sector and national security interests.

Innovation Policy and Acquisition Policy: A Dynamic Relationship

There are numerous examples where innovation policy has directly influenced acquisition policy, supporting technology development and innovation. The Stevenson-Wydler Technology Innovation Act of 1980 promoted technology transfer from federal labs to the private sector. The Bayh-Dole Act of 1980 enabled universities to retain ownership of federally funded inventions. The National Defense Authorization Act (NDAA) shaped procurement for the Department of Defense.

More recently, the CHIPS and Science Act of 2022 focused on revitalizing the domestic semiconductor industry. While primarily focused on innovation and technology transfer, these acts contain provisions that have significantly shaped acquisition policy. This has enabled a smoother transition of federally funded technology into the commercial sector, bolstering the

capabilities of various sectors, including the U.S. Department of Defense.

Stevenson-Wydler Technological Innovation Act of 1980

The Stevenson-Wydler Technology Innovation Act of 1980 (P.L. 96–480) created a series of laws to promote and encourage technology transfer. These laws encouraged the private sector to harness federally funded technology using acquisition instruments such as Cooperative Research and Development Agreements (CRADAs). Additionally, these laws focused on technology transfer, which is essentially knowledge transfer in the form of data, inventions, and materials from one organization to another.¹⁶

In innovation, technology transfer is the crucial process through which technology originating from federal labs, universities, or research institutions is transferred to the private sector for potential commercialization. The U.S. government invests heavily in research and development, with an annual budget exceeding \$100 billion, resulting in a continuous flow of innovative inventions and technologies. Technology transfer facilitates the transformation of these inventions into commercially viable products or services with the help of industry partners that further develop, scale up, and bring them to the market.

The Bayh-Dole Act of 1980

The Bayh-Dole Act of 1980 (P.L. 96-517) was landmark legislation that revolutionized the landscape of technology transfer and innovation in the United States. Before its enactment, inventions resulting from federally funded research were often owned by the

U.S. government, which limited their potential for commercialization. The Bayh-Dole Act addressed this issue by granting universities, small businesses, and non-profit research institutions the right to retain the title to inventions developed under federal funding.¹⁷ This shift in ownership incentivized these entities to actively pursue the commercialization of their discoveries through patenting and licensing agreements with private companies. The act's overarching goal was to stimulate economic growth, promote technological advancement, and ensure that taxpayer-funded research benefited the public by translating inventions into tangible products and services.

The impact of the Bayh-Dole Act is evident in the trends observed in the United States Patent and Trademark Office (USPTO) data. Since the act's enactment, there has been a significant increase in the number of patents filed and issued to universities and small businesses. ¹⁸ This surge in patenting activity reflects the heightened incentive for these entities to protect and commercialize their inventions, leading to a more vibrant and competitive innovation ecosystem in the United States.

CHIPS and Science Act

The CHIPS and Science Act of 2022 (P.L. 117-167) is a significant piece of legislation in the United States that aims to revitalize and strengthen the domestic semiconductor industry. Recognizing the strategic importance of semiconductors in various sectors, from consumer electronics to national defense, the act authorizes billions of dollars in funding to support the country's semiconductor research, development, and

manufacturing.¹⁹ By incentivizing domestic chip production and investing in research, the CHIPS Act seeks to reduce reliance on foreign chip manufacturers, mitigate supply chain vulnerabilities, create jobs, and foster technological innovation. It represents a concerted effort to bolster the United States competitiveness in the global semiconductor market while ensuring national security and economic resilience.

National Defense Authorization Act

The National Defense Authorization Act (NDAA) is a series of U.S. federal laws specifying the annual budget and expenditures of the U.S. Department of Defense (DoD). It also dictates the policies under which the funds will be spent, which guides the DoD and any agencies that follow the DoD's footprints on acquisition policy.

For example, in May 2023, the DoD issued a final rule to amend the *Defense Federal Acquisition Regulation Supplement (DFARS)* to implement section 842 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2023 (P.L. 17–263).

The amendment modifies the criteria for awarding follow-on production contracts without competition. Previously, DFARS 206.001-70(a) required Other Transaction (OT) solicitations and agreements to include provisions for a follow-on contract to qualify for an exception to competition requirements. The new revision removes one of the requirements, enabling the award of a follow-on production contract without competitive procedures. These changes were captured in statutes and regulations and updated guidance and procedures for the DoD and all agencies leveraging the DoD OT authorities.

Choosing the Right Contracting Instrument

Choosing the most suitable contracting instrument is a critical decision that significantly impacts the success of a project, particularly when it involves technological innovation and research. The *Federal Acquisition Regulation* (*FAR*) provides a framework for federal agencies, offering various contracting methods tailored to specific needs.

FAR Part 12 provides streamlined procedures for acquiring readily available commercial items, promoting efficiency and cost-effectiveness.

However, when procuring research and development (R&D) services, FAR Part 35 outlines specific regulations to foster innovation and collaboration between government agencies and contractors.

Small businesses seeking to contribute to technological advancements can leverage the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.²⁰ These programs provide funding and support to small businesses to conduct R&D, ultimately leading to the commercialization of innovative products and services.

On the other hand, federal prize competitions offer a unique approach to stimulating innovation. By setting specific challenges and offering monetary rewards, these competitions incentivize individuals and organizations to develop creative solutions to pressing problems.

Procurement for Experimental Purposes (PEP), codified in 10 USC 4023, provides a flexible mechanism for projects exploring emerging technologies or acquiring innovative prototypes. PEP allows agencies to bypass traditional procurement processes, enabling them to rapidly develop and test new technologies with the potential to enhance government operations or mission capabilities.

Ultimately, choosing the right contracting instrument requires a thorough understanding of the project's objectives, the nature of the work, and the desired outcomes. By carefully considering the available options and aligning them with the specific requirements, decision-makers can ensure that the chosen instrument maximizes the potential for success and innovation.

So, how do organizations pick the right instrument? Well, that depends on what you are looking to contract for, how much you have in your budget, the intended outcomes, and

what considerations you must make for the contractor. For example, let's look at the requirements between two juxtaposed pathways: a grant and a cooperative agreement.

Grants

A grant is a legal instrument that is used to enter into a relationship: (1) of which the principal purpose is to transfer a thing of value to the recipient to carry out a public purpose of support or stimulation authorized by law, rather than to acquire property or services for the DoD's direct benefit or use; and (2) in which substantial involvement is not expected between the DoD and the recipient when carrying out the activity contemplated by the grant.²¹

A federal agency will use a grant

agreement as the legal instrument reflecting a relationship between the U.S. federal government agency and a state, a local government, or other recipient when:(1) the principal goal is to transfer money or resources (state, local government, etc.) to assist with a project that benefits the public, rather than the government buying material or services for itself; and (2) the government agency doesn't plan to be very involved in the day-to-day work of the project.²² Figure 2 provides a summary of important factors associated with grants.

Cooperative Agreements

A cooperative agreement is similar to a grant in that the government provides funding or resources to a

FIGURE 2. Comparison of Characteristics of Grants and Cooperative Agreements

Grant Characteristics	Contract Elements	Cooperative Agreement Characteristics
Funded	Funded / Unfunded	Funded
RDT&E	Funding Type(s)	RDT&E
Basic, Applied, and Advanced Research Only	Scope Limitations	Basic, Applied, and Advanced Research Only
31 USC 6304	Authorizing Statute(s)	31 USC 6305 and 10 USC 4001
32 CFR Part 22	Applicable Regulation	32 CFR Part 22
2 CFR 200	Cost Accounting Requirements	2 CFR 200
35 USC 200; and 32 CFR 34.25	IP Terms	35 USC 200; and 32 CFR 34.25



34

state, local government, or other organization to carry out a project for the public good. The critical difference is the level of involvement from the government agency. While grants are hands-off, cooperative agreements are used when the government agency anticipates being substantially involved in the project.²³

A federal agency will use a cooperative agreement when it wants to provide funding or resources to a state, local government, or other organization when (1) the main goal is to give something valuable (like money or resources) to the recipient to help them with a project that benefits the public, rather than the government buying things or services for itself; and (2) the government agency plans to be actively involved in the project, working closely with the recipient.24 Figure 2 provides a summary of important factors associated with cooperative agreements.

Like in any decision process, specific pathways can lead to the right decision, and just like innovation, the scientific method can be useful in reaching a conclusion. The decision to use one over another depends on the specific involvement the government agency may want in the project, based on bandwidth, expertise, and risk levels.

Conclusion

The complex and multifaceted nature of innovation is reflected in governments' diverse approaches to foster it worldwide. The dynamic between innovation and acquisition policies is evident in landmark legislation such as the Stevenson-Wydler Technology Innovation Act, Bayh-Dole Act, and the National Defense Authorization

Act (NDAA). While differing in their specific focus, these legislations have all played a crucial role in shaping how governments approach the procurement and development of new technologies.

The evolving landscape of innovation policy, particularly in public administration and policy, underscores the growing recognition of innovation's importance in addressing societal challenges and driving economic growth.

As the world becomes increasingly interconnected and technology continues to advance at an unprecedented pace, understanding and effectively leveraging innovation policy will be essential for governments and organizations to thrive.

Choosing the right contracting instrument, whether through traditional procurement methods outlined in the *FAR*, specialized programs like SBIR and STTR, or innovative approaches like prize competitions and PEP, requires careful consideration of project objectives, desired outcomes, and available resources.

By strategically aligning innovation policy with acquisition policy, governments and organizations can create fertile ground for technological advancement and drive progress in various fields, from national security to healthcare.

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procurement, managing strategic pursuits in collaboration with multi-sector partners. .

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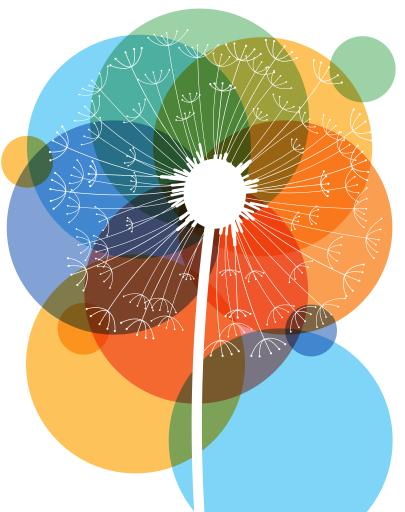
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SBIR PHASE III



Bridging the Valley of Death: From Concept to Commercialization



Moving technologies from concepts and prototypes to commercialization is essential to continuing innovation.

Some recommendations for improving commercialization under SBIR Phase III should be considered.

By Stephanie Lemaitre, PMP



he so-called "valley of death" refers to the stage of development when innovative technologies fail to transition from prototype to production.

Under the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, this gap is addressed by a unique phased structure, which includes Phase I (concept), Phase II (prototype), and Phase III (commercialization).

The purpose of Phase III is to support innovations by successfully transitioning concepts and prototypes across the valley of death into commercialization. Phase III has served as an incubator to some of the most successful and transformative innovations in government. Yet, challenges related to the current policy and regulatory framework, funding, and lack of knowledge, resources, and data around SBIR Phase III currently exist.

Targeted solutions to address these pain points should be implemented to enable federal agencies to fully realize the benefits of the SBIR program, and to ultimately increase the pace of technological innovation and advancement to meet mission needs.

Origin of SBIR

The SBIR program was established by Congress in 1982 (P.L.97-219) to stimulate high-tech innovation by encouraging participation of small businesses in federally funded research and development (R&D) efforts.

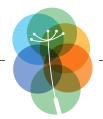
The program is structured in three phases, with each phase encompassing unique acquisition requirements and characteristics. Phases I and II are highly competitive phases in which domestic small businesses submit proposals in R&D topic areas designated by federal agencies participating in the SBIR program. Resulting Phase I and II awards encompass concept and

prototype work respectively, and are relatively small and short-term efforts, capped in both dollar value and duration. Whereas Phase I/II contracts are used to establish technical merit, feasibility, and commercial potential, Phase III contracts are used for commercialization and are not subject to the same requirements and limits as Phase I/II.

Phase III contracts are larger longer-term efforts that incorporate the awardee's concept/prototype work from Phase I/II. After an initial Phase III contract is awarded, the contractor may receive additional Phase III awards, which can derive, extend, or complete efforts from any Phase I, II, or III contract that the contractor was awarded. Another important aspect of Phase III is that those contracts do not use SBIR funding, which can make it difficult for organizations seeking the benefits and flexibility of using those funds.

FIGURE 1. SBIR Program Phases

PHASE I Concept & PHASE II Prototype	PHASE III Commercialization
 Highly competitive awards for R/R&D work May only be procured by federal agencies that participate in SBIR program Must utilize SBIR funding – no other color of money permitted Must be awarded to domestic small businesses with 500 or fewer employees Must be within specific dollar value and period of performance limits 	 Direct awards for any type of work that derives from, extends, or completes a company's prior SBIR efforts (sole source-like but considered competitive) May be procured by any federal agency (i.e., agency does not need to participate in SBIR program to issue Phase III awards) May utilize any color of money except SBIR funding May be awarded to any size business, including a business that has grown to Other than Small size status (e.g., via revenue growth or acquisition) No limits on award number, duration, type, dollar value
	To mine on arrana hambon, asilaton, type, aonar value



SBIR Phase III Challenges

SBIR Phase III challenges have gathered more attention during the past few years, especially during the last SBIR/STTR program reauthorization, completed in September 2022.

The sections below explain the policy and regulatory framework, funding uncertainty, and the lack of expertise and resources that affect Phase III of the SBIR program.

Complicated Policy and Regulatory Framework

The SBIR/STTR² Policy Directive is published by the Small Business Administration (SBA) and provides rules, policies, and guidance to federal agencies on the SBIR program, implementing the statutory authority provided to SBA by Congress. Federal agencies are required to adhere to the SBIR/STTR Policy Directive through agency procedures.

Several award instruments can be used to issue Phase III contracts. Challenges are most common when contracting officers awarding Phase III contracts are working within the Federal Acquisition Regulation (FAR). The FAR currently includes some provisions that apply specifically to SBIR procurements, such as data rights, but does not address all the unique characteristics of Phase III contracts. Specifically, FAR provisions structured for traditional competitive or sole-source procurements differ from SBIR/STTR Policy Directive guidance around Phase III direct award contracts. These variances can be difficult for contracting officers to navigate.

For example, FAR Subpart 6.3 includes provisions for Other than

Although a J&A for Phase III awards is not explicitly required by either the *FAR* or the SBIR/STTR Policy Directive, it is still sometimes required by federal agencies due to internal preferences, policies, and/or procedures. This complicated regulatory framework around Phase III introduces ambiguity and confusion where policies and guidance have not been sufficiently aligned.

Full and Open Competition, including 6.303 Justifications and 6.304 Approval of the justification (J&A). These provisions do not specifically state that there is a J&A requirement for SBIR Phase III awards. However, the SBIR/STTR Policy Directive states that if a J&A is deemed required by an agency, it is sufficient to state that the project is an SBIR/STTR Phase III award that is derived from, extends, or completes efforts made under prior SBIR/STTR Funding Agreements and is authorized pursuant to 15 U.S.C. 638(r)(4).

Although a J&A for Phase III awards is not explicitly required by either the *FAR* or the SBIR/STTR Policy Directive, it is still sometimes required by federal agencies due to internal preferences, policies, and/or procedures. This complicated regulatory framework around Phase III

introduces ambiguity and confusion where policies and guidance have not been sufficiently aligned.

Funding Implications

SBIR and STTR are together known as "America's Seed Fund." This nomenclature reflects the mission of the SBIR and STTR programs to seed technological innovations through federal funding mechanisms, and these mechanisms are mandated by the U.S. Congress.

The SBIR/STTR Policy Directive requires that each federal agency with an extramural budget for research and research and development (R/R&D) of more than \$100,000,000 must participate in the SBIR program. These agencies are obligated to spend a minimum percentage of their extramural R/R&D budgets to

fund small businesses through the SBIR program. While Phase I and II are innately tied to these funding requirements contained in the SBIR/STTR Policy Directive, there are currently no mandates for Phase III funding obligations. This lack of Phase III funding requirements leads to a lower level of participation, and thus return on investment, in the commercialization phase.

Additionally, funding for Phase III contracts can often take longer to secure than new technology or small businesses can remain relevant. Under traditional federal funding cycles, it may take years for new funding allocations for Phase III work to materialize; by the time this funding becomes available, the technology may be obsolete, or the small business may no longer be viable.

Lack of Knowledge, Resources and Data

Phase III has been known for years as the most ambiguous phase in the SBIR/STTR program, largely because most contracting professionals do not work with SBIR contracts or receive in-depth training on SBIR. Some SBIR resources are available on the web, including at www.sbir.gov and www.sbtc.org, but these materials are typically high-level or specific to certain agencies.

Although the SBA offers some general training resources, there is no central location with publicly available and comprehensive how-to training for contracting officers at any federal agency to use for executing Phase III procurements. For contracting professionals at federal agencies that do not participate in the SBIR program, written guidance from their agencies on Phase III

procurements often does not exist, and locating peers with Phase III experience to consult with at these agencies may be challenging.

Furthermore, publicly available
Phase III award data is lacking. The
SBIR website publishes a wealth of
Phase I and II data, but no Phase
III data. The Federal Procurement
Data System can be used to search
for Phase III data, but there is no
consistent or streamlined way to
generate reports about it, making
searches challenging and inaccurate.
SBA does not collect and publish
Phase III contracting statistics.

Federal agencies vary in their requirements for Phase III contract reporting, and no federal requirement exists for prime contractors to report Phase III subcontract awards.³ With no centralized mechanism for publicly available Phase III award data, visibility into Phase III contracts is extremely limited. This lack of reporting and data creates barriers to fully understanding the metrics on Phase III conversions, and more generally inhibits collaboration through reduced transparency.

Bridging the Valley of Death

Phase III has led to the creation of some of most successful innovations used every day around the world across the federal government and commercial enterprises. Focusing efforts on solutions to Phase III difficulties will enable government and industry to better reap the benefits of SBIR investments and the SBIR program overall.

As the SBIR program enters its final year of the SBIR and STTR Extension Act of 2022 (S. 4900),⁴ addressing

these challenges has been a topic of conversation as policymakers are looking forward to the next reauthorization in 2025.

Procurement Regulatory Updates,
Guidelines, and Additional Resources
Ideally, the FAR should be updated to
fully reflect the unique characteristics
of Phase III procurements in a way
that would clear up confusion while
still providing room for flexibility. This
has been a challenge in part due to
the short-term nature and instability
of the SBIR program, which must be
re-authorized by Congress every three
years.

Updating the *FAR* is also not a quick process, as many steps need to be followed to introduce amendments to existing provisions. At a minimum, all federal agencies should prioritize developing their own Phase III resources and training to help contracting officers navigate nuances between the *FAR* and the SBIR/STTR Policy Directive.

Federal agencies should establish partnerships both within and outside the federal government to provide education and hands-on assistance with Phase III procurements. This could take the form of agency collaboration through the General Services Administration (GSA) Assisted Acquisition Services (AAS) or other assisted acquisition providers, with either free or paid training and consulting, as well as rotations or mentorship programs with the federal agencies that have the highest spending level on Phase III procurements (namely, the U.S. Air Force, Navy, Army, Defense, Department of Homeland Security,

and National Aeronautics and Space Administration).

Federal agencies should also seek opportunities to partner with procurement focused organizations, such as NCMA, to provide contracting professionals from both government and industry with Phase III-focused professional development and networking opportunities.

Spending Mandate, Incentives, and Reporting

Similar to Phase I/II, mandatory requirements for Phase III spending should be developed to increase federal agencies' funding obligations under Phase III. This could take many different forms, including requiring federal agencies to allocate a certain percentage of their fiscal year budgets to new Phase III contracts (regardless of the color of money),⁵ or modifying the existing SBIR funding mandate to allow Phase III awards to count towards the required SBIR R&D spending level for agencies participating in the SBIR program.

Applying financial incentives at all levels, from the federal agency down to the individual contracting officer, would reward and presumably increase Phase III participation. According to the Federal Register's notice of revisions to the SBIR/STTR Policy Directive,6 which became effective in May 2019, one commenter suggested that SBA revise the policy directive to include bonuses or incentives to contracting officers and prime contractors that make Phase III awards. While this type of compensation structure may be considered controversial, monetizing as well as mandating participation in Phase IIIs

should be considered and could be structured in many different ways.

In addition to funding requirements and incentives, a central repository for Phase III funding data should be publicly available, as it currently is for Phase I and Phase II. The SBA should implement mandatory Phase III reporting by all federal agencies and display this data on www.sbir.gov. This type of transparent and publicly accessible Phase III reporting would help us to better understand the Phase III transition landscape. It would also serve as a catalyst in creating visibility into potential synergies between government and industry and between prime contractors and subcontractors through additional commercialization opportunities. As the reauthorization of the SBIR/ STTR program approaches, it will be interesting to see if Congress introduces any new measures to better track transitions among all the SBIR phases across the federal government through SBA.

Optimizing Phase III Acquisitions

Contract vehicles should be utilized to make Phase III procurements broader, flexible, and more efficient. This would help alleviate major challenges associated with Phase III procurements, provide easier and more streamlined contracting, increase awareness and availability of Phase III options across agencies and throughout the federal government, and help bridge the valley of death by making Phase III more accessible.

Rather than issuing standalone Phase III single awards, federal agencies should consider the use

A Visionary Approach to a New Type of Phase III Contract

A Government-Wide
Acquisition Contract (GWAC)
for Phase III was explored by
GSA's Assisted Acquisition
Services (AAS) through its
market research efforts for
the Research Innovation and
Outcomes (RIO) Program.
GSA AAS' RIO concept
was the first of its kind, an
innovative solution to Phase
III challenges that brings the
benefits of a GWAC model
into the Phase III space.

In July 2022, GSA AAS issued a Request for Information (RFI), and then communicated to industry in May 2023 that it had begun an Acquisition Plan for RIO and expected to release a draft Request for Proposal (RFP) in the summer of 2023. Since then, no further updates on RIO have been announced by GSA AAS publicly or to industry.

While we await news of the status of RIO, GSA AAS should be applauded for taking this critical first step towards enabling federal agencies and contracting officers to award Phase III contracts more efficiently and effectively. Whatever the end result, RIO introduces a truly innovative approach to Phase III contracting and models creative solutioning within the acquisition community for all federal agencies to emulate.

of Basic Ordering Agreements⁷ (BOAs), Indefinite Delivery, Indefinite Quantity⁸ (IDIQ) contracts, Blanket Purchase Agreements⁹ (BPAs), and Government-Wide Acquisition Contracts¹⁰ (GWACs) to create economies of scale and allow a higher volume of ordering through quicker and more efficient acquisition methods.

Phase III BOAs allow the federal government to quickly create ordering agreements with one or more companies under an unlimited ceiling and with maximum ordering flexibility. Phase III IDIQ/BPA awards, when decentralized and open for ordering across a federal agency, allow all components within the same agency to award, fund, and manage their own Phase III orders. These agreements cut down on the time and investments required by acquisition offices by streamlining efforts.

A Phase III GWAC would transform the way Phase III contracting is done and create an unprecedented opportunity to bolster innovations across the federal government through Phase III commercialization. GWACs such as U.S. General Services Administration's (GSA) Alliant 2 and OASIS, National Institute of Health's (NIH) CIO-SP3, and National Aeronautics and Space Administration's (NASA) SEWP are widely popular contract vehicles that offer simplified and expedited ordering for information technology across the federal government. Using a GWAC for Phase III awards would provide the same benefit of efficiency and speed, as well as increase participation in Phase III across federal agencies and industry by making it easier to contract.

Conclusion

Phase III contracts have the potential to bring innovative solutions into the federal government across every industry and mission need. As part of the prestigious Tibbetts Awards program, which recognizes companies, organizations, and individuals that exemplify the very best in SBIR/STTR achievements, a range of Phase III success stories are honored, highlighting the significant achievements Phase III contracts make possible.

Examples include technology that can be used to screen for infectious diseases in near-real time, a processing system that positively impacts nutritional deficiencies of children abroad, and a three-dimensional printing modification that can create functional goods out of trash in disaster situations. These innovations change the way we live and interact in the world for the better. More can and should be done to overcome the challenges federal agencies and industry face with Phase III contracts to better capitalize on R/R&D investments made through increased Phase III participation. CM

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ENDNOTES

- 1 https://www.sbir.gov/sites/all/themes/sbir/dawnbreaker/img/documents/Course1-Tutorial1 v2.pdf
- 2 https://beta.www.sbir.gov/sites/default/ files/2022-05/SBA_SBIR_STTR_POLICY_ DIRECTIVE_OCT_2020_v2.pdf
- 3 Phase III awards can be issued as prime contracts or subcontracts.
- 4 https://www.sbir.gov/node/2274471
- 5 "Color of money" refers to different categories of appropriations associated with federal government funds.
- 6 https://www.federalregister.gov/ documents/2019/04/02/2019-06129/smallbusiness-innovation-research-program-andsmall-business-technology-transfer-programpolicy
- 7 A BOA is an instrument of understanding (not a contract) executed between a procuring activity and a contractor that sets forth negotiated contract clauses that will be applicable to future procurements between the parties during the term of the agreement. It includes as specific a description as possible of the supplies or services and a description of the method for determining pricing, issuing, and delivery of future orders. https://www.dau.edu/glossary/basic-ordering-agreement
- 8 An IDIQ is a type of contract used to acquire supplies and/or services when the exact times and/or exact quantities of future deliveries are not known at the time of contract award. https://www.dau.edu/glossary/indefinitedelivery-contracts
- 9 A BPA contract is a simplified acquisition method that government agencies use to fill anticipated repetitive needs for supplies or services. BPAs are negotiated on an individual agency level, and generally only a small number of agency offices can place orders on them. One advantage of traditional BPAs is that a buyer can use them to acquire a full range of services under one BPA, rather than having to purchase through multiple contracts. https://www.dau.edu/glossary/blanket-purchase-agreement
- 10 A GWAC is a task-order or delivery-order contract for information technology established by one agency for Governmentwide use that is operated (1) by an executive agent designated by the Office of Management and Budget pursuant to section 5112(e) of the Clinger-Cohen Act, 40 U.S.C. 1412(e); or (2) under a delegation of procurement authority issued by the General Services Administration (GSA) prior to August 7, 1996, under authority granted GSA by the Brooks Act, 40 U.S.C. 759 (repealed by Pub. L. 104-106). https://www.fpds.gov/help/Create_a_GWAC.htm
- 11 https://tibbettsawards.com/



POST ABOUT this article on NCMA Collaborate at http://collaborate.ncmahq.org.

Building Enough Building Enough Enoug

DIU's ICAP Fellows share lessons in leveraging flexible acquisition tools to accelerate commercial technology across DoD.

By Shaun Bright, Ralph Barnes, Christine Docker, Brittany Harris, Rebecca Lingenfelter, and Tianna Seaman n an era marked by rapid technological advancements and evolving geopolitical landscapes, the U.S. Department of Defense (DoD) faces an imperative: to modernize swiftly and effectively to counter near-peer threats.

Recognizing the urgency of this challenge, the Defense Innovation Unit (DIU) has pioneered a ground-breaking approach to acquisitions via the Commercial Solutions Opening (CSO) process. The CSO was first authorized by Section 879 of the FY17 National Defense Authorization Act (NDAA); the DoD was granted permanent CSO authority via Section 803 of the FY22 NDAA, to be codified in 10 U.S.C. §3458.

This authority enables rapid integration of commercial technology into the DoD with greater flexibility than traditional *Federal Acquisition Regulation (FAR)*-based methods. CSOs can use Other Transactions (OT) agreements¹ or *FAR*-based fixed-price contracts (not cost-reimbursable) as an award instrument based on what is deemed applicable.

By mirroring the agility and pace of the commercial sector and prioritizing buying over traditional building processes, DIU's process represents a pivotal approach to injecting speed into the defense acquisition system.

In 2022, DIU launched the Immersive Commercial Acquisition Program (ICAP) with two clear objectives: enhance the DoD contracting workforce's understanding of the OT

FIGURE 1.

Goals of the Immersive Commercial Acquisition Program

- 1. Educate and provide top DoD contracting officers with experience on how to effectively acquire innovative commercial technologies from non-traditional defense contractors.
- 2. Provide experience and insight into how the commercial market operates and what drives a commercial organization to do business with the government/DoD.
- 3. Empower change agents and arm contracting officers with the relevant tools and knowledge on how to craft acquisition, contracting, and negotiation strategies that can effectively incorporate commercial technology and non-traditional vendors into the DoD acquisition ecosystem.
- 4. Provide organizations with trained contracting officers able to train others, fluent in the innovation ecosystem and networked with other service components contracting officers.

authority and establish a replicable framework for swift acquisition of innovative commercial products. To that end, ICAP functions as an immersive learning opportunity that provides Fellows with the essential skills and knowledge to effectively navigate OT-based transactions.

Beyond individual skill development, ICAP seeks to drive systemic change by promoting the adoption of the CSO framework across the DoD. This framework facilitates the rapid acquisition of dual-use items – products with both commercial and defense applications – and empowers ICAP Fellows to disseminate these efficient practices within their organizations. Through ICAP, DIU not only cultivates a new cohort of

acquisition experts but also sparks a broader movement toward agile and efficient defense procurement processes.

In October 2023, DIU welcomed its second cohort of six ICAP Fellows from across the Services. including the Department of the Navy, Air Force, Space Force, Army, and the Defense Information Systems Agency. With extensive experience in both FAR-based contracts and OT agreements, each ICAP Fellow brings a unique perspective to the program. As they embarked on their immersive journey in the program, these Fellows swiftly gathered and synthesized their most significant lessons learned, which are highlighted in this article.

Lessons Learned From Current ICAP Fellows



Shaun Bright
Defense Information Systems Agency (DISA)

IU often receives up to 100 or more responses to its solicitations, yet manages to keep lead times from solicitation to award within 90-180 days thanks to its CSO process. The CSO provides government acquisition teams with standardized assessment and award procedures for prototype projects. These procedures help create a framework for the acquisition team to operate within, while allowing flexibility for critical thinking and analysis during assessments.

The CSO process begins when the solicitation is uploaded directly onto DIU's website. From the outset, what distinguishes DIU's CSO from a solicitation or CSO from other federal agencies is its clear and straightforward language. They are brief, readily accessible, and easy to respond to, typically requiring either a concise five-page white paper or a 15-slide pitch brief.

From there, DIU facilitates a three-phase down-selection to identify, assess, and select the best solutions to meet the government's problem

statement (see Figure 2). Under Phase I, the government team evaluates each solution brief based on its relevance to the solicitation, whether the proposed solution is unique, underutilized and/ or innovative,² and its technical merit. Successful pitches move on to Phase II – pitch sessions.

Phase II pitch sessions are held between companies and the government team; they may be in-person or virtual. The companies give a detailed briefing on their solution, explain how it addresses the government's problem statement, and if necessary, answer any clarifying questions from the government team. Companies also present their estimated cost, project schedule, and desired data rights for the project. Similar to the first phase, the government team evaluates each pitch session on relevance, innovativeness, technical merit, affordability, schedule feasibility, and data rights.

Depending on the availability of funding, the government team may move one or more solutions into the final phase of assessments – requests for project proposals. At this stage, the government asks companies to submit formal technical and price proposals. Throughout this phase, the government

negotiates pricing, schedule, data rights, the statement of work, and terms and conditions of the agreement. The government team evaluates the proposal(s) and makes an award decision based on the overall value to the government and acceptability of the final negotiated terms and conditions.

The structure of the CSO process reduces acquisition planning lead times by standardizing the solicitation and award process and placing a greater focus on communicating the critical challenge(s) the DoD is facing. The three-phase down-select method used to evaluate solutions allows government teams to focus their time and effort on the most promising and innovative solutions.

However, a CSO may not be suitable for unique prototype projects that require a more specialized or complex evaluation process, such as technologies that require strict compliance with military-specific standards. Additionally, if a contracting organization awards very few OTs per year, there may not be as great of a benefit to publish a CSO notice. Regardless, these organizations could still benefit by adopting similar assessment and award processes into their standard operating procedures.

FIGURE 2. DIU's CSO Process - Three-Phase Down-Select



5-Page Solution Brief: Technology, concept, and viability.

Assessment: Relevance, innovativeness, technical merit.

Pitch Session: Detailed brief on solution and how it addresses Gov't problem statement.

Assessment: Relevance, innovativeness, technical merit, company viability, ROM, schedule, and data rights.

Request for Project Proposal: Technical and price proposal.

Assessment: Technical and price; negotiate T&Cs, price, and statement of work.



Ralph Barnes

U.S. Army

he Other Transaction prototype authority granted in 10 U.S.C 4022 allows agreements officers to enter into agreements that fulfill the needs of the government and offer the most flexibility to all parties involved. This authority is very the regulations relied upon to build *FAR*-based contracts.

OT agreements are very flexible arrangements between the U.S. government and contractors – often non-traditional defense contractors³ – who are not familiar with *FAR*-based contracts. The U.S. government wants to encourage these companies to do business with them and leverage commercial terms and conditions whenever possible. The government must also take care to not bring *FAR*-based language, regulations or policy into the OT space.

I have had many conversations with Army stakeholders to help them understand the flexibilities available under the OT prototype authority that are not available in the *FAR*. For example, the Competition in Contracting Act (CICA) is not required in OT agreements; instead, compe-

"Collaboration and frank conversation with our stakeholders lead to flexible agreements that meet the needs of all parties better than the rigidity of the *FAR* and supplements."

different and, in many ways, foreign to a traditional *FAR*-based contracting team because the *FAR* and its supplements do not apply.

It is incumbent on the government professionals working in the OT agreement(s) space to ensure that all the stakeholders understand the nature of OT agreements and how best to proceed through the process of awarding them, absent

extent practicable."⁴ While we do seek competition to ensure we can use the prototype agreement and its follow-on production agreement, it is not the formal competition rules laid out in the *FAR*. This collaboration and frank conversation with our stakeholders lead to flexible agreements that meet the needs of all parties better than the rigidity of the *FAR* and supplements.



Christine Docker

ILS Air Force

he mission of DIU is to procure commercially developed prototypes, giving performers the necessary freedom to innovate. Prototype projects⁵ are experiments – there is a lot to be learned from a failed experiment. It would be counterproductive to punish a performer if the prototype is a failure. For this reason, the use of performance reporting tools that are traditionally used on procurement contracts such as Contractor Performance Assessment Reporting System⁶ (CPARS) and Supplier Performance Risk System⁷ (SPRS), are inapplicable to DIU OT prototype awards.

In lieu of these reporting tools, which are required for *FAR*-based acquisitions, DIU utilizes the OT best practice⁸ of establishing firm, fixed-price, agreement-specific milestones that serve as go/no-go discussion points. From my observations, milestones are generally used to demonstrate progress toward prototype completion. Because the milestones are defined for each

agreement, they identify the key technical goals of a project, and are employed as opportunities to decide whether to continue developing the prototype.

In the case of multiple agreements with different performers, the milestones may also serve as a method to off-ramp a vendor. While OT agreements do include termination verbiage, it is not the standard *FAR*-version of termination for default, cause or convenience. Instead, the termination article states that either

"There are no rules here; we're trying to accomplish something."

- Thomas Edison

party may terminate the contract, provided it is preceded by consultation between the parties. This allows the parties to agree the prototype effort is not working out – it has resulted in a failed experiment – and to move to the next step of mutually ending the agreement.

In my previous experience with terminations, contract terminations were punitive in nature; they came about because the vendor failed to meet the terms of the contract. I've learned that with prototyping, the vendor's failure to produce an effective prototype is contemplated at the beginning, as it is built in to the nature of prototyping. To paraphrase Thomas Edison, "There are no rules here; we're trying to accomplish something."

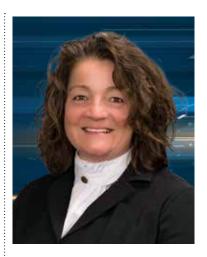
Rather than seeking to use terminations as a "stick" for failed

performance, terminations are used to acknowledge the goals of the prototype are not achievable, at least as written in the agreement, and both parties need to end the agreement and return to the drawing board to approach the problem from a different angle. The performing vendor is eligible to submit a new proposal if/when DIU elects to pursue a prototype for the same or a similar area of interest.

Finally, as an ICAP Fellow, I have observed that unilateral actions are rare in DIU agreements. *FAR*-based unilateral actions, 9 such as exercising and funding an option, are routine and nearly completed on autopilot for experienced contracting professionals.

The first time I was asked to draft a modification to exercise and fund an option, I assumed it would be unilateral. When my supervising agreements officer said it would be bilateral, ¹⁰ I asked if there was something more being accomplished with the modification that would require bilateral agreement. He explained that the modification "article" (not "clause") for modifications did not allow for unilaterally exercising and funding options.

While the agreement can permit the government to execute unilateral actions, it is discouraged for two reasons: first, the majority of vendors are nontraditional defense contractors who are unfamiliar with the typical *FAR*-authorized unilateral actions, and second, the most common unilateral action – funding – drives additional performance, and the vendor may not be able to support the additional workload, at least without notification of the pending demand.



Rebecca Lingenfelter U.S. Navv

ince becoming an ICAP Fellow, I have come to understand that the DIU CSO process fosters collaboration between the program office, contracting office, and the companies which, in turn, facilitates the rapid execution of prototype

"The DIU CSO process fosters collaboration between the program office, contracting office, and the companies."

awards. This level of collaboration reduces the cycle time between the request for prototype proposal and the award of a prototype project.

The open discussions during the development of the statement of work ensure the tasking is clear and understood by all parties – government and contractor. DIU's emphasis on working with non-traditional contractors (NDCs) provides valuable insights that are not constrained by traditional government regulations.



Brittany Harris U.S. Air Force and U.S. Space Force

IU has a novel approach to market intelligence, which is evidenced in its structure. As opposed to the traditional method of conducting market research online, DIU's ongoing commercial engagement approach seeks out capable vendors from a variety of industries and actively engages with them. This strategy includes communicating with the private sector to connect commercial capabilities with DoD needs, saving the acquisition team valuable time.

Under the new_DIU 3.0½ organizational strategy, DIU is embedding personnel at critical nodes of warfighter demand (i.e., placing liaisons within the most innovative operating organizations of the Combatant Commands, the Joint Force, the special operations community and each of the Services). Those embeds will both help shape demand for technology and ensure that innovation efforts are unwaveringly focused on meeting it.

Between the organization's

commercial engagement approach and the military embeds, DIU is able to curate the most strategically relevant problem sets and identify whether there is a commercial market solution available to solve the problem. Most agencies do not have entire teams dedicated to seeking out problems and matching them with available technologies.

understand the flexibility is both warranted and encouraged.

A prime example of an open-minded DIU process is collaborative development of the Statement of Work (SOW). Competition is provided up front based on multiple responses to the same problem statement. Since these responses can vary widely in

"Having *FAR*-based contracting experience and understanding the "why" behind each *FAR* requirement will help the agreements officer assess the risk and be more open-minded."

Standard DoD procurement instruments are governed by the Federal Acquisition Regulation (FAR) and the Defense Federal Acquisition Supplement (DFARS), which is about 3,500 pages of policies in addition to agency supplements. The OT authority is exempt from these regulations and has roughly three pages of requirements in the statute and a few policy memos from the Office of the Secretary of Defense.

Every term and condition in an OT agreement is negotiable but must include certain language to ensure that federal laws and statutes are incorporated to ensure compliance (*i.e.*, NIST and Section 899). This level of flexibility can become daunting, so it is important for those with experience in OTs to educate others to ensure they

approach, it doesn't make sense to create a SOW until you know what approach you want to move forward with. Co-developing the SOW with the contractor during the last round of evaluations ensures both parties understand expectations, which leads to fewer surprises in performance.

Having this flexibility means the agreements officer must apply their critical thinking skills to appropriately assess risk on every term and condition. Using samples and templates provided by organizations that have been awarding OTs for years is a great place to start. Having FAR-based contracting experience and understanding the "why" behind each FAR requirement will help the agreements officer assess the risk and be more open-minded.



Tianna Seaman

US Naw

ne of the most valuable lessons I learned in my time as an ICAP Fellow is that the DIU culture is centered around a "One Team, One Fight" mentality. In my FAR-based acquisition experience it is the regulations that drive a wedge between the acquisition team and their counterparts. The warfighter needs supplies and services much sooner than they are usually delivered.

The acquisition community is forced to follow the regulations which, unfortunately, place a lengthy delay on being able to provide the warfighter with what they need in a timely manner. The flexibilities provided by the OT process allow for a better working relationship between the mission partner, program manager, and acquisition team.

Within the first month as an ICAP Fellow, I learned about a valuable way to verify non-traditional defense contractors (NDC) status in accordance with 10 USC 3014 via SAM.gov. I decided to reach out to my home organization and inquire about their process for completing the

requirement, only to learn they were relying solely on company self-verification. Ultimately, by sharing the knowledge I acquired as an ICAP Fellow, my home organization's OTA shop was able to implement the change and improve how they accomplished NDC verification.

"The ICAP program is enabling me to witness acquisition processes as they are being created — a rare opportunity for most contracting professionals."

DIU is spearheading the *first ever* use of an OT authority under Section 843 of the FY23 NDAA to achieve a new facility construction that will obligate military construction (MILCON) funds. As an ICAP Fellow, I have the opportunity to watch as DIU, in conjunction with the Navy and Air Force, are developing and implementing this new business process. The ICAP program is enabling me to witness acquisition processes as they are being created – a rare opportunity for most contracting professionals.

How to Become an ICAP Fellow

The DIU ICAP Fellowship is a rewarding

opportunity to learn new ways of doing business, expand your network, create partnerships, and understand how your organization can use additional contracting authorities that offer more flexibility in the acquisition process.

Applications for the FY25 ICAP cohort are open and will close on August 7, 2024. To learn more about the program and submit your application, visit www.diu.mil/icap. CM

ENDNOTES

- 10 USC 4022 DoD OT Prototype Authority
- 2 Innovative, as defined in DIU's CSO, means any new technology, process, or business practice; or any new application of an existing technology, process, or business practice that contributes to enhancing military effectiveness and sustaining global peace and U.S. national security. https://sam.gov/opp/e74c907a9220429d9ea995a4e9a2ede6/view
- 3 10 USC 3014.
- 4 10 USC 4022(b)(2).
- 5 10 USC 4022(e)(5)
- 6 FAR 42.1501(b), CPARS is the official source for past performance information. Past performance information (including the ratings and supporting narratives) is relevant information, for future source selection purposes, regarding a contractor's actions under previously awarded contracts or orders.
- 7 DFARS 204-7602, SPRS is required for the evaluation of quotes or offers in response to solicitations for supplies or services. SPRS retrieves item, price, quality, delivery and contractor information from contracts in Government reporting systems in order to develop risk assessments for contractors.
- 8 Office of the Under Secretary of Defense for Acquisition and Sustainment, Other Transactions Guide, pg. 28 (July 2023, v2.0).
- 9 FAR 43.103(b), a unilateral modification is a change to the contract signed only by the contracting officer. One example is adding funds and exercising options under the authority of an Options clause.
- 10 FAR 43.103(a), a bilateral modification is a supplemental agreement to the contract which is signed by both the contractor and the contracting officer. An example would be extending the delivery date.
- Released in February 2024, DIU 3.0 focuses on addressing the U.S. military's most critical capability gaps – the ones necessary to deter and, if necessary, win a major power war. For more information, visit https://www.diu.mil/ latest/diu-3-0-scaling-defense-innovation-forstrategic-impact.



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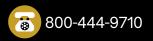
48



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The fundamental goal of OTs is to entice commercial organizations to participate with government agencies, bringing their leading-edge commercial technology solutions to the problems that those agencies are charged with solving.

he Soviet Union launched Sputnik, the world's first artificial satellite, in October 1957, which shocked and alarmed policymakers and the U.S. public. The launch demonstrated the Soviet Union's technological and military superiority in the space domain and posed a serious threat to the U.S. national security and global leadership. The U.S. government realized that it had fallen behind in the scientific and engineering fields, and that it needed to take immediate and decisive actions to catch up and surpass its rival.

One of the major responses to the Sputnik crisis was the passage of the Space Act of 1958,¹ which was signed into law by President Dwight D. Eisenhower in July 1958. The Space Act created two new federal agencies: the National Aeronautics and Space Administration (NASA), which was responsible for civilian and scientific exploration of space, and the Defense Advanced Research Projects Agency (DARPA),² which was tasked with developing cutting-edge technologies for defense purposes.

The Space Act also authorized the use of Other Transactions (OTs), which

are contractual agreements that are not subject to the same laws and regulations as traditional contracts, grants, or cooperative agreements.³

The creation of DARPA and the use of OTs were instrumental in advancing the U.S. capabilities and competitiveness in the space race and the Cold War. Some of the notable achievements of DARPA include the development of the first ballistic missile defense system, the first weather satellite, the first communication satellite, and the precursor of the internet.

Other Transactions have also been used to support various defense-related projects, such as stealth aircraft, unmanned aerial vehicles, and biotechnology. In the modern era of rapidly evolving threats and challenges, these agreements have become an increasingly important tool for the DoD and other agencies to acquire emerging technologies that can enhance its mission.

What Is an Other Transaction?

The term "Other Transactions" signifies a legally binding agreement that is not subject to some of the common procurement statutes and regulations. True to their design, OTs provide government teams significant flexibility in developing an appropriate award process for their projects, considering that Federal Acquisition Regulation (FAR), FAR supplements such as the Defense Federal Acquisition Regulation Supplement (DFARS), and the Competition in Contracting Act (CICA) do not apply.

When leveraging an OT, government agencies are not required to complete the formal competition structure laid out in CICA (i.e., three tiers of competition: full and open, limited, and sole source with justification and approval), nor follow the competition rules in the FAR.

To help the acquisition teams navigate the OT landscape, several agencies have created internal guides on best practices. The Department of Defense, Department of Homeland Security, NASA, and the Department of Health and Human Services all have current guides, most of which are publicly available.

The fundamental goal of OTs is to entice commercial organizations to participate with government agencies, bringing their leading-edge commercial technology solutions to the problems that those agencies

are charged with solving. OTs give agencies a high degree of flexibility to permit them to contract with organizations that would otherwise not be willing to enter government contracts.

By design, the Other Transactions Agreement (OTA) framework emphasizes a bottom-up approach, which gives significant decision-making power to public administrators and allows these public administrators considerable influence in shaping and enacting policy on the ground, especially when policy lacks clear direction on its implementation.⁴ In short, OTs allow public administrators to cut through the proverbial red tape, thereby helping their organizations to pivot quickly in response to novel scientific or programmatic needs by avoiding the many time-consuming requirements in FAR-based procurements.

Other Transactions Versus Procurement Contracts

Unlike procurement contracts – contracts that are subject to the *FAR* and its supplements – OTs intend to provide benefits to the DoD such as attracting new companies, establishing a network for resources to develop and/ or obtain innovative technologies, and providing an instrument for the DoD to influence technology and innovation.⁵ Research shows the diversity of companies changed drastically after 10 U.S.C. § 4022 passed in FY2016.

In the 95 months prior to the full implementation, only 78 new companies were awarded DoD prototype OTs, and most months saw no new companies, or only one new company awarded a DoD prototype OT

award. In contrast, in the 61 months that followed, there were 935 new companies awarded DoD Prototype OTs, and there was rarely a month with no new company awards.⁶

Furthermore, following the passage of 10 U.S.C. § 4022, most months saw 10 or more awards to new companies and less than one-third of the months saw 20 or more OT awards. The policy change resulted in a statistically significant increase in the number of new companies being awarded DoD Prototype OT awards each month.⁷

When leveraged appropriately, OTs provide the government with access to state-of-the-art technology solutions from industry through a multitude of potential teaming arrangements tailored to the project and to the needs of the participants.

A common misperception about OTs is that their purpose is to engage small business and nontraditional defense contractors (NDCs),⁸ like a small business. While the use of OTs will often foster new relationships and practices involving commercial firms, especially those that may not be interested in entering *FAR*-based contracts with the government, this is a benefit of OTs, rather than their express purpose.

Innovative Approaches and Applications

Eleven Madison Park

David Drabkin, in his capacity as the Section 809 Panel Chair,⁹ issued a stark warning: "The abuse of OTAs is going to lead to an event where Congress is going to do what it normally does and take them away from

us." Essentially, if we can't self-police, Congress will remove the availability of OTs as a tool.

Lawmakers are generally concerned where overregulation has been shown to adversely affect government agencies' abilities to fund technology investment and their ability to induce commercial firms to enter the federal marketplace. However, the government maintains overriding interests in assuring procurement integrity and transparency. Without an appropriate and precise record management system tracking OTs, the government simply cannot be a transparent and reliable business partner.

We can draw inspiration from an unlikely source: the hospitality industry. Will Guidara is a renowned restaurateur who, along with chef Daniel Humm, transformed Eleven Madison Park from a struggling brasserie into the number-one-ranked fine dining restaurant in the world. Guidara's vision was to create an exceptional dining experience that combined exquisite cuisine, impeccable service, and a sense of surprise and delight for the quests.

However, Guidara had to balance his artistic and entrepreneurial sides, by being both restaurant smart and corporate smart. He understood the importance of maintaining the financial viability and sustainability of the restaurant, while also pursuing his creative vision and aspirations. He managed to do this by finding ways to increase the revenue and reduce the costs of the restaurant, such as increasing the number of seats, changing the reservation system, and streamlining the operations.

By being both restaurant smart and corporate smart, Guidara was able to ensure the success and longevity of Eleven Madison Park, while also expanding his influence and impact in the culinary world.

So, what does that even mean, being "restaurant smart" and being "corporate smart?"

According to Guidara, being restaurant-smart means being adaptable, flexible, creative, and responsive to the needs and preferences of the guests and the team. Being restaurant-smart also means being willing to take risks, experiment, and learn from mistakes.

Being corporate-smart, on the other hand, means being rigid, standardized, rule-bound, and focused on the bottom line. Being corporate-smart also means being risk-averse, conservative, and resistant to change.¹²

The concept of being restaurant-smart versus corporate-smart can be applied to the dilemma of using OTs.

The federal government can benefit from being more restaurant-smart by embracing the flexibility and innovation that OTs offer, and by trusting the people on the ground who have the expertise and experience to execute the projects. However, the government also needs to be aware of the potential pitfalls of being too restaurant-smart, such as fraud, waste, and abuse, and therefore maintain some degree of corporate-smart oversight and regulation to ensure accountability and transparency.

Finding the right balance between being restaurant-smart and corporate-smart is the key to maximizing



the benefits and minimizing the risks of using OTs.

To be clear, this is about fostering a culture that supports both fiscal responsibility and unreasonable innovation – and that begins with leaders inviting their entire team to take part in identifying and naming both problems and goals. This may sound unreasonable, but being reasonable only produces more of the same, contradicting and undermining the whole point of innovation. While avoiding undue risk is the government's responsibility, placing too much focus on risk avoidance stifles creativity and innovation.¹³

It is up to government and industry leaders to find a third way: how to introduce transparency reporting and sensible controls without limiting their own future success. These systems do not currently exist, which means that someone must take the first step lest Congress does it for us.

Good Decisions Require Good Data

All federal procurement and grant data may be viewed on www.US-ASpending.gov (also www.SAM.gov and www.grants.gov), in accordance with the DATA Act, 14 but these reporting systems are often fraught with errors and require special expertise to comb through, map, and interpret the raw data.15 In fact, several government reports have examined the use of OTs using publicly available sources. For example, they have found that award data for DoD research and development efforts to be consistent throughout the years because that data is consistently not recorded, either accurately or at all.16

Federal statute defines Information Security (INFOSEC) as, "protecting information and information systems from unauthorized access, use, disclosure, disruption, modification, or destruction in order to provide integrity, confidentiality, and availability."¹⁷

Integrity is perhaps the most complex and misunderstood characteristic, because integrity is a matter of degree that must be defined as a quality of the information and not as who does or does not have access to it. Integrity describes the quality of the information and identifies how closely the data represent reality, which means that we can describe data with good integrity as being, "good data."

This means that to collect good data, we must ask the right questions. Asking the right questions means defining the purpose and scope of the data collection, identifying the relevant sources and methods of data collection, designing clear and consistent data formats and standards, and validating and verifying the data quality and accuracy.

Collecting good data by asking the right questions can help avoid data errors, gaps, inconsistencies, and redundancies that may compromise the integrity of the data and the decisionmaking process based on the data.

Lastly, collecting good data by asking the right questions can help to optimize the data collection process, reduce the cost and time of data collection, and increase the usability and value of the data for multiple purposes and stakeholders.

Data redundancy and unnecessary records present a variety of challenges to system implementors and administrators. It is the daily users themselves, in both government and industry, who can do the most to maintain good data stewardship.¹⁹ It is paramount that U.S. procurement and spending data be robust and

accurately reflect the reality it is meant to represent.

Feedback Control Loops

Simply assuring good data integrity will never be enough. The real risks are not that some spreadsheets are unorganized, but that poor administration will breed the sorts of fraud, waste, and abuse that everyone fears.

The solution is feedback.²⁰ It sounds simple enough, but people often overlook the need for *actually* providing good, sensible, and timely feedback, especially when that feedback is negative or indicates some type of programmatic failure. Even for the simplest computing tasks, many machines utilize some type of feedback to temper their own output – any healthy organization must do the same.

A feedback control loop is a mechanism that allows a system to adjust its behavior based on the difference between its actual output and its desired output. A feedback control loop consists of four components: a sensor, a controller, an actuator, and a setpoint.

The sensor measures the actual output of the system and sends it to the controller. The controller compares the actual output with the setpoint, which is the desired output of the system, and calculates the error. The controller then sends a signal to the actuator, which modifies the input of the system to reduce the error. The feedback control loop repeats this process until the actual output matches the setpoint or reaches an acceptable range.²¹

Feedback can be either negative or positive, depending on whether

it reduces or increases the error.

Negative feedback stabilizes the system and brings it closer to the setpoint, while positive feedback destabilizes the system and drives it away from the setpoint. Both types of feedback are needed for a system to function properly, but they must be balanced and regulated.

If there is too much negative feedback, the system may become sluggish and unresponsive, or oscillate around the setpoint. If there is too much positive feedback, the system may experience runaway, where the error grows exponentially, and the system becomes unstable and chaotic.

For example, a thermostat is a simple feedback control loop that uses negative feedback to maintain the room temperature at a setpoint. If the temperature is too high, the thermostat turns off the heater and lowers the temperature. If the temperature is too low, the thermostat turns on the heater and raises the temperature. However, if the thermostat is faulty and uses positive feedback instead, it would turn on the heater when the temperature is too high and turn off the heater when the temperature is too low, causing the temperature to rise or fall uncontrollably.

Therefore, a feedback control loop must use both negative and positive feedback appropriately, according to the nature and goals of the system.²² There is already a highly effective system in place throughout the U.S. government to help do just that.

CRM and Cooking With F.I.R.E.

Composite Risk Management (CRM) is a systematic process of identifying,

assessing, controlling, and evaluating risks across all phases of a project or operation, to enhance performance and ensure success. CRM is based on the principle that risk is inherent in any activity, and that managing risk effectively can improve the outcomes and reduce the costs and consequences of adverse events.

CRM is not a one-time event, but rather a continuous cycle of planning, executing, monitoring, and adjusting, that involves all levels of the organization, from the strategic to the tactical. CRM is especially relevant for U.S. government procurement, grants, and other transaction agreements, which often involve complex, uncertain, and dynamic environments, where multiple stakeholders have different interests, expectations, and perspectives.²³

CRM is a flexible and adaptable process that can be applied to any project or operation, regardless of its size, scope, or complexity. By using CRM, U.S. government agencies and contractors can enhance their innovation capabilities while ensuring the safety, quality, and efficiency of their products and services. CRM can help them to manage risk proactively, rather than reactively, and to balance the trade-offs between risk and opportunity, in order to achieve the best possible outcomes.

It is one thing to just say that an organization is risk-minded, but there has to be a system that everyone can follow that is simple and easy to remember.

Dan Ward, a former U.S. Air Force officer and innovation expert, offers a simple formula to complement good

Five Steps of CRM

- 1. Identify hazards: A hazard is any condition, event, or circumstance that may lead to an accident, injury, loss, or damage. The first step of CRM is to identify all the potential hazards that may affect the project or operation, both internal and external, and both known and unknown. This can be done by using various methods such as brainstorming, checklists, surveys, inspections, or historical data analysis.
- 2. Assess risks: A risk is the probability and severity of an adverse outcome resulting from a hazard. The second step of CRM is to assess the level of risk associated with each hazard by considering the likelihood of occurrence and the impact of consequences. This can be done by using various tools, such as matrices, scales, charts, or formulas, to assign a quantitative or qualitative value to each risk and rank them according to their priority.
- **3. Develop controls**: A control is a measure or action that reduces or eliminates the risk associated with a hazard. The third step of CRM is to develop and implement appropriate controls for each risk by considering the cost, benefit, feasibility, and effectiveness of each option. This can be done by using various strategies such as avoidance, mitigation, transfer, or acceptance, to reduce the probability or severity of the risk.
- **4. Implement controls**: The fourth step of CRM is to execute the chosen controls, by allocating the necessary resources, personnel, and authority, and communicating the plan and the responsibilities to all the relevant stakeholders. This can be done by using various techniques, such as training, supervision, coordination, or documentation, to ensure the proper and timely implementation of the controls.
- 5. Supervise and evaluate: The fifth and final step of CRM is to monitor and review the performance and effectiveness of the controls, by collecting and analyzing data, feedback, and lessons learned, and identifying any changes, gaps, or issues that may arise. This can be done by using various methods, such as audits, reports, inspections, or surveys, to measure the results and outcomes of the controls, and make any necessary adjustments or improvements.

risk management while still creating and delivering great products and services – F.I.R.E.²⁴ F.I.R.E stands for Fast, Inexpensive, Restrained, and Elegant, and represents the core principles that quide successful innovators.

Ward draws on his own experience as well as examples from various industries to show how F.I.R.E. can help anyone achieve more with less. F.I.R.E. is not just a practical guide but also helps leaders to create a mindset and a culture that fosters creativity, collaboration, and transparency. By following F.I.R.E., organizations can avoid the pitfalls of complexity, bureaucracy, and waste, and instead focus on the essential aspects of your project that deliver value and delight.

Essentially, innovation requires a different mindset and approach than business as usual.

Leaders who want to foster innovation need to embrace the F.I.R.E. principles: fast, inexpensive, restrained, and elegant. By applying these principles, they can create an environment where small companies and startups can thrive and collaborate with the government to solve complex problems through OTs. However, they also need to be mindful of the potential pitfalls and trade-offs of using OTs and ensure that they maintain transparency and accountability while pursuing speed and agility.

Conclusion

The government has a powerful tool to foster innovation and encourage collaboration with industry. OTs are flexible agreements that allow the government to access cutting-edge research and development without the burden of traditional procurement reg-

Defining F.I.R.E.

Dan Ward, a former U.S. Air Force officer and innovation expert, explains the meaning and the benefits of each word in the F.I.R.E. acronym:

- Fast: Speed is a key factor in innovation because it allows us to test our ideas, learn from our failures, and adapt to changing conditions. By using short cycles of experimentation and feedback, we can avoid spending too much time and resources on unnecessary features or activities, and instead deliver solutions as quickly as possible.
- Inexpensive: Cost is another important element of innovation, as it determines the feasibility and the scalability of any solution. By minimizing the amount of money, materials, and manpower required to complete a project, we can reduce the risk of failure, increase the return on investment, and leverage existing assets and capabilities whenever possible.
- Restrained: Constraints are not obstacles, but opportunities for innovation, as they stimulate your creativity and force you to focus on the essential elements of a solution. By imposing limits and boundaries on a project team, such as budget, schedule, or scope, leaders can help eliminate distractions, simplify decisions, and prioritize quality over quantity.
- Elegant: Simplicity, elegance, and beauty are not only aesthetic values, but also functional ones they enhance the usability and the appeal of your solution. By seeking simplicity, elegance, and beauty in the design and execution, leaders can avoid complexity, clutter, and confusion, and instead create solutions that are easy to understand, use, and maintain.

ulations. These agreements help the government bridge the gap between its needs and the capabilities of the private sector, especially in emerging fields such as artificial intelligence, biotechnology, and cybersecurity.

However, OTs also face a serious challenge: how to balance transparency and accountability with speed and agility. The government needs to ensure that OTs are used appropriately and effectively, and

that the public can trust that their tax dollars are well spent.

At the same time, the government needs to preserve the autonomy and discretion that make OTs attractive to commercial firms and conducive to innovation. If the government fails to strike this balance, it risks losing the trust and support of Congress and the public, as well as the interest and participation of commercial firms.

One of the key issues that affects

both transparency and accessibility of OTs is the lack of a centralized and comprehensive source of information on OT opportunities and awards. Industry often struggles to find and understand OT solicitations, which are dispersed across various platforms and use different terminologies. This creates a barrier to entry for potential innovators that may have valuable solutions to offer, but do not have the time or resources to navigate the complex and fragmented OT landscape.

Moreover, the limited availability and visibility of OT data makes it difficult for the government and other stakeholders to monitor and evaluate the performance and outcomes of OTs, and to identify and share best practices and lessons learned.

Government and industry should work together to create and maintain a user-friendly and reliable way to advertise OT opportunities and awards. It would serve as a one-stop shop for companies interested in engaging with the government, and for the public and policymakers interested in overseeing and understanding the impact of OTs.

This tool, such as a minor expansion of the existing capabilities found at SAM.gov, would increase the awareness and attractiveness of OTs among small companies and facilitate their participation and collaboration in the government marketplace. It would also enhance the transparency and accountability of OTs and demonstrate their value and effectiveness in advancing the government's innovation goals.

By addressing this issue, government and industry can foster a culture of innovation and creativity that leverages the strengths and potentials of OTs, while mitigating the risks and challenges they pose.

Improving the transparency and accessibility of OTs would not only benefit the government, but also the public and the national security. It would enable the government to tap into the vast pool of talent and expertise in the private sector, and to deliver innovative and timely solutions to the complex and evolving problems it faces.

At the end of the day, all roads to improving the Other Transaction Authority begin and end with improving transparency. CM

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- Originally known as the Advanced Research Projects Agency (ARPA), the agency was created on February 7, 1958, by President Dwight D. Eisenhower in response to the Soviet launching of Sputnik 1 in 1957.
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- 4 H. C. Hill, Understanding Implementation: Street-Level Bureaucrats' Resources for Reform, 13(3) J. Public Adm. Res. Theory J-PART 265 (2003).

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- 12 See Will Guidara, Unreasonable Hospitality: The Remarkable Power of Giving People More than They Expect (2022).
- 13 Schooner, supra note 32.
- 14 Digital Accountability and Transparency Act of 2014, Pub. L. No. 113-101, 128 Stat. 1146 (2014)
- 15 JPMorgan Chase & Co. Policy Center, Lifting Barriers to Small Business Participation in Procurement, Small Bus. Growth Entrep. (2022); see Kuchina-Musina and McMartin, supra note 14; see Sheffield, supra note 2.nationally recognized public procurement experts Dolores Kuchina-Musina and Benjamin D. McMartin present a comprehensive analysis of the alternative contract vehicles used to promote innovation in the United States (U.S
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BY IRVIN GRAY, JD, MBA, LLM, CPCM, CFCM, CCCM, NCMA FELLOW

The Liberty Ship - The 'Ugly Duckling' **That Saved Britain**

Simple steps can reduce risk in an innovation project. As demonstrated by the Liberty Ships in World War II, these steps led to 2,710 new ships and 52 million tons of shipping capacity. These steps can also help deliver results for your acquisition.

n 1941, the World War II-era Liberty Ship produced by the United States was called an "Ugly Duckling" based on its appearance. The ship was designed with "manufacturability" in mind. The engine was chosen based on the number of subcontractors that could build it instead of overall performance. The designers chose to use welds instead of rivets since

workers could be trained in a shorter

time. And key sections were designed

to be built as separate modules and

joined later.

Despite its looks, the Liberty Ship saved Britain and led to the defeat of Germany. Between 1941 and 1945, United States shipyards built 2,710 Liberty Ships at an average rate about 1.5 ships per day. The Liberty Ships provided 52 million tons of additional shipping capacity to resupply allies in Europe.

This article will review key project management concepts in "How Big Things Get Done" by Bent Flyvbjerg and Dan Gardner (2023) and apply them to the historical example of Liberty Ships delivered during World War II to deliver supplies to Europe, as chronicled in "Freedom's Forge" by Arthur Herman (2012).

Organizing Complex Projects

A "heuristic" is a quick, fast rule for approaching complex decisions. There are 11 heuristics that are key to project management success. (Flyvbjerg, Gardner). This article will summarize the heuristics, review three of them, apply them to the Liberty Ship acquisition in World War II, and provide suggested approaches for project managers in charge of innovation.

11 Key Heuristics

Applying these 11 simple rules increase the chances of success:

- 1. Hire a Master Builder. Find someone with deep experience delivering similar projects.
- 2. Get Your Team Right. A great team can deliver outstanding results using a mediocre project plan.
- **3. Ask "Why?"** Determine the ultimate purpose of the project and what success looks like.
- 4. Build With Lego-like Pieces. Find building blocks that can be scaled into the final project, (e.g., a wedding cake with 10 tiers).
- 5. Think Slow, Act Fast. Make mistakes on the whiteboard when they are cheap. Planning is cheap. Delivery is expensive.
- 6. Take the Outside View. Use a reference class of similar projects to provide a wide lens to gather data.
- 7. Watch Your Downside. Treat opportunities as a slight upside, and risks like a game-ender.
- 8. Say No and Walk Away. Say no to actions that do not contribute to the goal.
- 9. Make Friends and Keep Them Friendly. Maintain relationships with key stakeholders.
- 10. Build Climate Mitigation Into Your Project. Consider using natural renewable resources to reduce dependence on fossil fuels.
- 11. Know That Your Biggest Risk Is You. Project failures are often blamed on bad weather or unforeseen events. However, research shows that behavior bias and overoptimism are key threats to projects. Those risks are in the project manager's head.

Delivering Liberty Ships

"The foundation of all our hopes and schemes was the immense shipbuilding program of the United States." (Winston Churchill, 1942.)

In 1942, British merchant ships were being sunk by German U-boats at a rate of 13 million tons per year. To replace the capacity, the United States agreed to provide 8 million tons of new ships in 1942 and 10 million tons in 1943. In the middle of 1942, President Franklin D. Roosevelt increased the requirement to 9 million tons in 1942 and 15 million tons in 1943.

One practical problem was that the shipyards to build such a fleet did not exist. Another is that traditional shipbuilding had a 12-month cycle time from keel laying to commissioning.

Here are how three heuristics helped solve the problems:

Hire a Master Builder – To address the critical need to expand manufacturing, the federal government brought in experts from the world of manufacturing. Between 1940 and 1945, about 300 citizens from manufacturing industries were appointed as "dollar-a-year men" to advise the federal government on wartime production. These industries included automobiles, steel production, ball bearings, construction, and machining. (They were paid \$1 per year because U.S. law forbids the government from accepting the services of unpaid volunteers.)

Ask "Why?" The main goal of the Liberty Ship program was to save Britain from starvation by building new merchant ships faster than

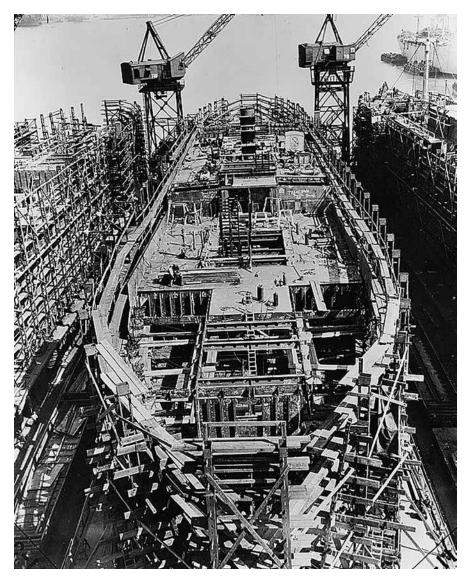
59

German U-boats could sink them. To achieve that goal, the project was designed to produce approximately 15 million tons of additional merchant ships per year. Once that production goal was defined, the individual efforts could be aligned. Shipyards were designed and built at rapid pace around the country. The shipbuilding process was reengineered to align with automobile industry's main innovation: the assembly line. While the technical details were clear, the underlying motivation was to save Britain through resupply.

Build With Lego-like Pieces. In 1941, Liberty Ships were delivered in 253 days between keel laying and commissioning.

The Richmond and Portland shipyards competed to reduce cycle time from keel laying to commissioning. Initially, the Richmond shipyard reduced assembly time to 80 days per ship. The Portland shipyard cut the time to 71 days per ship. In July 1942, Portland finished the *Thomas Bailey Aldrich* in 43 days. In August 1942, Richmond delivered a ship in 24 days. In September, Portland delivered the *Joseph Teal* in 10 days.

In November 1942, the Richmond shipyard planned to deliver a "five-day ship." On November 7, all the preassembled parts of the ship were laid in the shipyard. The hull was built from five large components weighing as much as 110 tons. The decks were made of 250-ton components. On the second day, 17 teams of welders applied 152,000 lines of welds to join 93 prefabricated sections. On day three, the deckhouses, masts and equipment were in place. At 3:27 PM on November 12, the *Robert E. Peary* was launched



Construction of a Liberty Ship at Bethlehem-Fairfield Shipyards Inc., Baltimore, Maryland in 1943. When this photo was taken on the 10th day of construction, 1,575 tons of ship were in place. The lower deck was being completed and the upper deck amidship was being erected with the inner stack installed.

at four days, 15 hours, and 26 minutes after the keel laying. No shipyard was able to beat the record.

Critics claimed that the effort was a publicity stunt, and that the shipyard had spent months assembling the components. Defenders of the effort argued that the five-day ship proved the modern mass production methods had revolutionized shipbuilding.

During its career, the *Robert E.*Peary logged 42,000 miles in the

Pacific and Atlantic oceans and

loaded a record 10,500 tons of cargo in

less than 35 hours. It was not retired

until 1963.

Lessons for Innovating With Acquisitions

Here is how to apply three heuristics to promote innovation:

Hire a Master Builder. When developing the solicitation, consider factors such as corporate experience, past performance, and key personnel to find the master builders. For corporate experience, ask for prior projects that are similar to this acquisition. For those same projects, ask for the buyer's experience with this company. Provide additional credit for firms that assign the same key personnel who worked on similar projects that succeeded. After gathering the strengths and weaknesses, determine whether to pay a premium for a firm that has experience, good past performance, and the same key personnel who delivered those projects.

Ask "Why?" For each acquisition plan, spend additional time identifying user needs. Introduce the plan with a brief statement of need, as described in FAR 7.105(a). In the case of the Liberty Ship, the need was 15 million tons of shipping per year.

Build With Lego-like Pieces. Divide the project into individual phases instead of one giant phase. For actual Legos, the Lego set for the Coliseum of Rome includes 9,000 individual pieces. A wedding cake includes multiple tiers that are assembled after baking. Shipping containers are identical blocks that carry millions of tons of cargo per year.

The Need for Innovation

To keep up with competitors or adversaries, companies and agencies must innovate at a pace never seen before. To deliver highly complex projects in the face of change, they can look to simple steps to improve the chances of success. They can review historical



On September 27, 1941, SS Patrick Henry, the first U.S. Liberty Ship, was launched in Baltimore, Maryland. Numerous other vessels were launched on that day, known as "Liberty Fleet Day." (U.S. Office of Emergency Management Photograph. Courtesy of the Library of Congress.)

examples such as the Liberty Ships of World War II. By hiring master builders, focusing on "why," and building with Lego-like pieces, project managers can increase the chances that their innovation project will succeed. CM

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Celebrating 50 Years of the Office of Federal **Procurement Policy**

The OFPP has vastly improved economy, efficiency, and effectiveness in acquisition processes during the past half century. Its work continues with a focus on promoting a more sustainable future.



BY CHRISTINE HARADA AND PORTER GLOCK

The Office of Federal Procurement Policy (OFPP) turns 50 this year!

Looking back over the past half century, it's obvious that federal procurement has evolved in almost every conceivable way. Just as the products and services that the United States purchases have changed and evolved (think of the "information technology" in the 1970s versus today), so have the roles of those who make these federal purchases and the manner in which they do.

Today, the federal acquisition

field features a highly professional workforce addressing numerous socio-economic issues - including sustainability - which ensure that the world's largest single purchaser, the United States Government, meets the needs of its people.

Promoting Economy, Efficiency, and Effectiveness

OFPP was established by the Office of Federal Procurement Policy Act and signed into law on August 30, 1974 by President Gerald Ford to provide overall direction for government-wide procurement policies, regulations, and procedures; and to promote economy, efficiency, and effectiveness in acquisition processes.

To lead the new office, the authorizing statute created the position of Administrator for Federal Procurement Policy to be appointed by the President, with the advice and consent of the Senate.1

The Administrator was tasked with, among other things, "establishing a system of coordinated, and to the extent feasible, uniform procurement regulations for the executive agencies."² At the time, the Federal Government was rapidly changing. From the late 1960s through the 1970s, several new cabinet-level Executive Branch agencies were created, such as the Department of Transportation in 1967,³ the Department of Energy in 1977,4 and the Department of Education in 1980.5 The creation of each new agency added a new mission and a new maze of procurement policies and procedures to the federal enterprise.

Almost 10 years after the establishment of OFPP, the Federal Acquisition Regulation (FAR) became effective on April 1, 1984.6 The FAR is issued by the FAR Council, which includes the General Services Administration, Department of Defense, and National Aeronautics and Space Administration. Under

the policy guidance of OFPP, the FAR replaced a variety of agency and multi-agency procurement regulations to serve as a single regulation covering appropriated dollars in the Executive Branch.

From the 1980s through the 2000s, federal reliance and spending on contractors continued to increase. In 1989, the Department of Veterans Affairs was created, expanding the previous Veterans' Administration's role and responsibilities.7 The Procurement Executives Council was created in 1999,8 which later evolved to the Chief Acquisition Officers Council.⁹ In response to the attacks of September 11, 2001, the Department of Homeland Security was created in 2002, further expanding the government's role and our collaboration with our contracting partners to protect the American people.¹⁰

Through these times, the role of the contracting officer continued to change. Increasing complexities, training, and certification altered federal acquisition from an administrative function to a profession. Acquisition techniques evolved: the acquisition of commercial items increased, and the use of multiple award contracts expanded greatly.

Category management led to major cost avoidances and allowed contracting officers to spend more time on more mission-specific and cutting-edge procurements. In support of these efforts, OFPP promoted and advanced new and innovative acquisition practices shared through tools like the Periodic Table of Acquisition Innovations.¹¹ OFPP and the acquisition workforce have continued to evolve and meet the mission.

Catalyst for Change

In today's world, the Federal Government's purchasing power remains extraordinary, purchasing over \$700 billion of goods and services last year alone¹² - far greater than any other single entity on the planet.13

Through this massive market force, the United States' procurement can be a catalyst for change. Contracting officers have an obligation to use public funds for the public good. This means not only purchasing goods and services for the benefit of the taxpayer, but also - and equally importantly - not purchasing goods and services which run contrary to the public good. One clear example is not contracting with suspended or debarred entities.

However, contracting for the public good also means not purchasing goods and services which are detrimental to public health. A holistic viewpoint is critical. If a procurement meets the need of one agency, but simultaneously creates present or future issues for another, the government is not functioning economically, efficiently, or effectively. From supporting domestic industry growth, increasing supply chain resilience, and combating climate change, federal procurement must be a part of addressing the major challenges of our time.

One major example of this is advancing sustainable procurement, which not only drives us to solutions which meet the mission, but also helps promote public health through improved environmental standards. Environmental purchasing requirements pre-date the FAR itself. For example, the Resource Conservation

and Recovery Act, enacted in 1976, included provisions for a recovered materials procurement program. ¹⁴ *FAR* integration of ENERGY STAR® standards helped expand use of that program, ¹⁵ and today it is widely understood in the commercial marketplace.

Efforts to improve the sustainability of the federal procurement supply chain have continued through current times. In recent years, the amount of federal contracting dollars containing sustainability criteria has continued to grow – increasing over 45% since fiscal year 2018. This rate is significantly greater than the 29% overall increase in governmentwide contract spending over the same time period.

Advancing Sustainability and Combating Climate Change

From day one, the Biden-Harris Administration has explicitly noted federal procurement's role in advancing

a sustainable future. ¹⁸ During his first year in office, President Biden signed four executive orders that explicitly incorporate procurement's critical role in combating climate change and protecting our environment. ¹⁹

FAR rulemakings have already solicited stakeholder input on better integrating climate and environmental considerations into federal acquisition. For example, the Minimizing the Risk of Climate Change in Federal Acquisitions rulemaking sought input on how greenhouse gas emissions, including the social cost of greenhouse gases, could best be considered in federal procurement decisions.²⁰ More than 35,000 commenters submitted views and ideas on ways transactional procurement could consider the externalities of their performance.21 Additionally, on Earth Day (April 22, 2024), the FAR Council finalized the Sustainable Procurement rulemaking.22

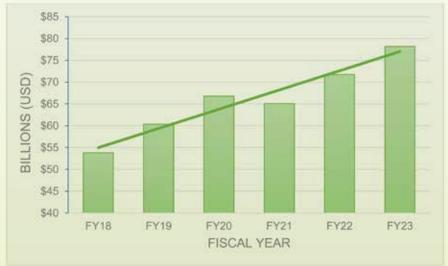
Sustainable Procurement Rule

The Sustainable Procurement rule implements section 208(a) of Executive Order 14057, Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, which directs agencies to reduce emissions, promote environmental stewardship, support resilient supply chains, drive innovation, incentivize markets for sustainable products and services, and purchase sustainable products and services.²³

Specifically, the executive order directs agencies to purchase sustainable products and services identified or recommended by the **Environmental Protection Agency** (EPA) to the maximum extent practicable in accordance with relevant statutory requirements. In support of the executive order, the Council on Environmental Quality, Climate Policy Office, and the Office of Management and Budget jointly issued Memorandum M-22-06, which listed EPA programs for sustainable products and services, including WaterSense®, Safer Choice, and EPA Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing – now required for use to the maximum extent practicable.24

The Implementing Instructions for Executive Order 14057 further stated that agencies must prioritize multi-attribute products and services that meet at least one statutory mandate and one or more of the applicable requirements or EPA recommendations.²⁵ Additionally, the Implementing Instructions provide situations when it would be considered not practicable to procure sustainable products and services and provide a listing of helpful resources

FEDERAL AWARDS DOLLARS WITH SUSTAINABILITY CRITERIA¹



64

for identifying and understanding sustainable items.²⁶

Updates to the *FAR* Environmental Coverage

The Sustainable Procurement rulemaking²⁷ represents a significant revision to the FAR's environmental coverage – in fact, it is the section's first major revision in over a dozen years.28 FAR part 23's former heading, "Environment, Energy and Water Efficiency, Renewable Energy Technologies, Occupational Safety, and Drug-Free Workplace" has become a more streamlined "Environment, Sustainable Acquisition, and Material Safety." While a name may be just a name, the content changes of the revamped FAR part 23 are a major step in advancing sustainable procurement from the world's single largest purchaser.

FAR subpart 23.1, "Sustainable Products and Services," implements the requirements for purchasing sustainable products and services in Executive Order 14057, Memorandum M-22-06, and the CEQ implementing instructions. The policy section at FAR 23.103 directs agencies to procure sustainable products and services to the maximum extent practicable. Procuring sustainable products and services is considered practicable unless agencies cannot acquire products or services, they are unable to obtain them competitively within a reasonable performance schedule, they fail to meet reasonable performance requirements, or they are unavailable at a reasonable price.²⁹

The term "sustainable products and services" is now incorporated in FAR 2.101 and includes both

Federal acquisition has long been a leader in influencing products and services available throughout the United States and the world.

statutory purchasing programs and EPA purchasing programs, such as WaterSense®, Safer Choice, and products and services that meet EPA Recommendations of Specifications, Standards, and Ecolabels in effect as of October 2023. Content related to existing statutory purchasing programs, such as recovered materials, biobased programs, and energy efficiency, have been streamlined in the new section at FAR 23.107, titled, "Statutory purchasing programs."

Contractors working under actions for services or construction are required to provide products that meet the definition of sustainable products and services whenever the products are delivered to the government, furnished by the contractor for use by the government, incorporated into the construction of a public building or public work, or acquired by the contractor for use in performing services under a government contract where the cost of the products is a direct cost to a government contract (not when costs that are normally applied to a contractor's general and administrative expenses or indirect costs).30

If the requiring activity submits a written justification addressing the

rationale not to procure sustainable products and services, the contracting officer may consider it not practical. In drafting the solicitation (and later the contract), the contracting officer must ensure the documents identify the sustainable products and services, including the purchasing program and type of product or service, that are applicable to the acquisition, as identified by the requiring activity. The contracting officers must also document when products and services are not subject to the requirements, based on the written justification from the requiring activity as outlined in the FAR.31

These efforts utilize EPA's subject-matter expertise through not only their own programs, but also through their assessment of third-party ecolabels through its Recommendations of Specifications, Standards, and Ecolabels.32 EPA's recommendations help identify thousands of products and services that address environmental and human health issues across the lifecycle including energy and water efficiency, chemicals of concern, plastic use and reduction, and more. EPA plans to continue assessing labels and standards for inclusion in its recommendations. Importantly,

leveraging EPA's expertise creates administrative efficiencies as contracting officers are spared from thousands of individual analyses of ecolabels when making procurement decisions.

The update incorporates these requirements into a new contract clause at FAR 52.223-23, Sustainable Products and Services, to uniformly communicate the government's requirements for sustainable products and services.³³ The clause is intended to be included in federal contracts going forward per the instructions at FAR 23.109, unless a listed exception applies.

These updates to FAR part 23 will help ensure the taxpayer receives goods and services that help support a sustainable future both in terms of continued mission delivery and environmental quality.

Conclusion

Federal acquisition has long been a leader in influencing products and services available throughout the United States and the world. United States Government demand for products has spurred markets for numerous items such as recycled content paper and recovered building materials, all while innovations advanced through government contracting touch nearly every aspect of our lives, from latches on our shoes to the commercial space programs used to launch the satellites modern communication systems rely on. OFPP will continue advancing and evolving federal procurement with the needs of the times and will continue to lead by example for the next 50 years and beyond. CM

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Stay in Control

Participants in the Small Business Innovation Research (SBIR) program must know how to navigate the negative control and ostensible subcontractor rules to maintain eligibility.



BY STEPHEN L. BACON

n the last several years, venture capital firms have become increasingly interested in backing small businesses that can deliver innovative technologies to the federal government. The Department of Defense (DoD) is especially interested in attracting investment to support small businesses that can help deliver cutting-edge technologies to the warfighter.

Many participants in the Small Business Innovation Research (SBIR) program are potential targets for venture capital investment. The SBIR program provides funding for small business to perform research and development (R&D) work on their technologies.

R&D funding provided through the SBIR program can be a game-changer for small firms that are looking to

break into the federal market, but to take advantage of these benefits small businesses and the companies that invest in or collaborate with them must understand the special eligibility rules that apply to the SBIR

SBIR participants are required to meet strict ownership, control, size and affiliation rules established by the Small Business Administration (SBA).1 In general, an SBIR awardee must be more than 50% owned and controlled by United States citizens or permanent residents aliens of the United States, other small business concerns that are more than 50% directly owned and controlled by individuals who are U.S. citizens or permanent resident aliens of the United States, or any combination of these.² Moreover, the SBIR awardee and its affiliates may not have more than 500 total employees.3 Two businesses are affiliated when one business either controls or has the

power to control the other business.4

In addition to these basic requirements, there are other lesserknown rules that can impact a firm's eligibility for an SBIR award when they bring on outside investors or team with subcontractors. The rules pertaining to "negative control" and "ostensible subcontractors" create especially dangerous affiliation traps that firms must avoid to remain eligible for SBIR awards.

Negative Control

An investment firm that takes a minority stake in a small business must balance competing priorities. Investors want to protect their investment by securing the right to participate in some aspects of managing the company. However, an investment firm's right to participate in or block certain management decisions can result in a finding of affiliation that renders the small business ineligible for an award.

67 **CONTRACT MANAGEMENT JULY 2024** NCMA

There are various ways in which the SBA can find affiliation between two firms. For example, affiliation may arise where the investor directly controls the majority of seats on the board of directors.⁵ Minority investors are unlikely to obtain this type of direct, "affirmative" control over the small business.

Instead, minority investors are more likely to obtain "negative" control over certain day-to-day management actions. The SBA Office of Hearings and Appeals (OHA) has ruled "that the existence of veto power over an important aspect of business constitutes negative control."

Even if the investor does not actually exercise negative control, the mere right of the investor to veto important decisions can result in a finding of affiliation. The SBA's general affiliation principles define negative control to include "instances where a minority shareholder has the ability, under the concern's charter, by-laws, or shareholder's agreement, to prevent a quorum or otherwise block action by the board of directors or shareholders."

In addition to preventing a quorum or blocking actions by the board, SBA OHA has concluded that veto power over other day-to-day decisions regarding the operation and management of the firm can constitute negative control. This includes, for example, changing the company's budget, incurring debt, purchasing equipment, hiring and firing officers, and setting employee compensation, among other actions.⁸

While minority investors cannot veto these "ordinary actions," the

SBA does permit them to block certain "extraordinary actions" that are not essential to the firm's daily operations. For example, "selling or otherwise disposing of all of the firm's assets, admitting new members, amending the operating agreement in any manner that materially alters the rights of existing members, or filing for bankruptcy all constitute extraordinary actions that may require the minority shareholder's input, but do not create negative control."

In the SBA's view, a minority investor's control over "extraordinary actions" is permissible because the investor's power is designed to protect their investment and does not constitute control over the ordinary actions of the business.

To maintain eligibility for award, small businesses and their outside investors must carefully craft the agreements governing the investors' rights to avoid an affiliation finding based on negative control. To the extent investors are granted any veto rights, they should be limited to "extraordinary actions" that do not encroach on the "ordinary actions" that impact the day-to-day management of the business.

Unfortunately, the SBA regulations do not contain a comprehensive list of "ordinary" and "extraordinary" actions and these concepts continue to evolve through SBA OHA case law. Small businesses and investors should stay apprised of developments in this area to be sure their agreements comply with the SBA's affiliation rules.

Ostensible Subcontractor Rule It is common for large businesses to

perform subcontractor work under an SBIR award. In fact, large businesses often use SBIR agreements as a way to learn more about smaller firms that may be targets for a future acquisition. By participating in SBIR agreements, larger firms can also form strategic relationships with SBIR awardees that can be leveraged for other programs and opportunities.

When teaming for an SBIR award, firms must appropriately structure their relationship to avoid a finding of affiliation under the ostensible subcontractor rule. Under that rule, a small business concern and its "ostensible subcontractor" are treated as joint venturers and, therefore, they are affiliated for size determination purposes and must meet the ownership and control requirements applicable to joint ventures.¹⁰

SBA regulations define an "ostensible subcontractor" as "a subcontractor or subgrantee that performs primary and vital requirements of a funding agreement (i.e., those requirements associated with the principal purpose of the funding agreement), or a subcontractor or subgrantee upon which the concern is unusually reliant."

If a firm's eligibility for award is challenged under the ostensible subcontractor rule, the SBA will consider "[a]ll aspects of the relationship between the concern and subcontractor" including "the terms of the proposal (such as management, technical responsibilities, and the percentage of subcontracted work) and agreements between the concern and subcontractor or subgrantee (such as

bonding assistance or the teaming agreement)."12

The small business awardee is generally required to perform a minimum of two-thirds of the "research or analytical effort" for Phase I and a minimum of one half of that effort for Phase II.13 Further, the small business must employ the project manager/principal investigator (PI) for the award.14

The proposal and any teaming agreement between the small and large business must be written with these requirements and the ostensible subcontractor rule in mind. It is especially important to document the commitment of the small business to perform the primary and vital requirements including its minimum share of the research and analytical effort. A failure to do so can result in a finding of ostensible subcontractor affiliation.

This occurred in the Size Appeal of NFRL LLC, a case that involved two SBIR Phase II grant awards issued by the U.S. Special Operations Command for a Next Generation Sniper Display and a Long-Range Machine Gun Sight.15 The SBIR awardee, NFRL, intended to use Lightforce USA, Inc. as its subcontractor.

The contracting officer (CO) filed a size protest against NFRL due to concerns about the relationship between NFRL and Lightforce. The cognizant SBA Area Office scrutinized the ties between NFRL and Lightforce and concluded that they were affiliated on several grounds, including under the ostensible subcontractor rule.

In that regard, the SBA found that NFRL intended to rely on Lightforce to perform the primary and vital

requirements of the grants including performing research, breadboard testing, and prototype assembly.16 NFRL's price proposal also showed that labor provided by Lightforce engineers would account for "approximately 64-66% of the total base year costs."17

After reviewing these facts, the Area Office concluded that NFRL would not have received the grants "without the employees, past performance, and technical approach" of its proposed subcontractor.18 As a result, NFRL and Lightforce were deemed affiliated under the ostensible subcontractor rule, a determination that was upheld by OHA on appeal.19 Moreover, NFRL and Lightforce could not qualify as an eligible joint venture because Lightforce was owned and controlled by an Australian citizen.20

Conclusion

The prospect of obtaining R&D funds through the SBIR program is extremely attractive to small businesses, their investors, and potential business partners. But companies that intend to participate in the SBIR program must proceed with caution when taking on outside investors or partnering with other firms to pursue SBIR opportunities.

The rules surrounding SBIR eligibility are complex and a violation can have devastating consequences. At a minimum, a firm's non-compliance with SBA rules will preclude it from winning SBIR awards. A violation of SBA rules could also trigger potential liability under the False Claims Act, which may subject a firm to significant monetary damages or even criminal prosecution. To avoid these consequences, agreements with investors and potential subcontractors should be thoroughly vetted to ensure compliance with all of the SBA's eligibility requirements including the negative control and ostensible subcontractor rules. CM

Stephen L. Bacon is a shareholder in the Washington, D.C. office of the law firm Rogers Joseph O'Donnell, where he represents government contractors in bid protests, claims, investigations, and suspension and debarment proceedings. He frequently litigates cases at the Court of Federal Claims, the Government Accountability Office, the Boards of Contract Appeals, and the Small Business Administration's Office of Hearings and Appeals. He also provides advice and counseling to clients on a broad range of contractual and regulatory compliance issues that confront government contractors.

The views expressed in this article are those of the author and do not necessarily reflect the views of Rogers Joseph O'Donnell or its clients. This article is for general information purposes and is not intended to be and should not be construed as legal advice.

ENDNOTES

- See generally 13 C.F.R. § 121.702.
- 13 C.F.R. § 121.702(a)(1)(i). A firm may also be eligible for an SBIR award if it is more than 50% directly owned and controlled by an Indian tribe, Alaska Native Corporation (ANC), or Native Hawaiian Organization (NHO) (or a wholly owned business entity of such tribe, ANC or NHO). Id.
- 13 C.F.R. § 121.702(c).
- Ιd
 - 13 C.F.R. § 121.702(c)(3).
- Cytel Software, Inc., SBA No. SIZ-4822, *6 6 (2006).
- 13 C.F.R. § 121.103(a)(3).
- Southern Contracting Solutions III, LLC, SBA No. SIZ-5956, *11 (2018).
- 10 13 C.F.R. § 121.702(7).
- 11 Id.
- 12 Id.
 - See SBIR/STTR Policy Directive, § 6(a)(2).
- 14
- NFRL LLC, SBA No. SIZ-6174 (2022).
- 16 Id. at *5.
- 17 Id
- 18 Id.
- 19 Id. at *8-10. Id. at *10.

69

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H.R. 815 – Making Emergency **Supplemental Appropriations** for the Fiscal Year Ending September 30, 2024, and for other purposes.

On April 24, 2024 President Biden signed into law H.R. 815, which provides supplemental emergency appropriations for fiscal year 2024 to federal agencies for assistance to Ukraine, Israel, and U.S. allies in the Indo-Pacific region.

Specifically, this legislation provides an additional \$331,200,000 for Defense Production Act Purchases and an additional \$542,400,000 for procurement accounts and research, development, test, and evaluation accounts.

S. 4066 - FIT Procurement Act

Senator Gary Peters (D-MI) introduced the Federal Improvement in Technology (FIT) Procurement Act (S. 4066). This legislation was referred to the Committee on Homeland Security and Governmental Affairs and on April 10, 2024, was included in a committee meeting to consider the pending legislation.

This legislation includes updates to federal procurement regulations and procedures for the acquisition of technology. The bill includes updates aimed at streamlining the procurement process to allow more companies to participate in the federal marketplace.

This legislation would amend federal law to allow agencies to acquire cloud computing and other information and communications technology on a subscription basis. This legislation would raise the simplified acquisition threshold (SAT) from \$250,000 to \$500,000. Moreover, this legislation would allow bidders in federal procurements to submit information related to their performance on commercial or non-government projects as relevant past performance. Finally, it would establish requirements for federal contracting personnel to receive specialized training on the acquisition of emerging technology, like artificial technology.

This legislation is awaiting further action by the Senate Homeland Security and Governmental Affairs Committee.

FAR Final Rule on Certification of Service-Disabled Veteran-Owned **Small Businesses**

On April 1, 2024, the Department of Defense (DoD), General Services



Administration (GSA), and National Aeronautics and Space Administration (NASA) (together the "FAR Council") published a final rule to amend the Federal Acquisition Regulation (FAR) by adding the framework for a new FAR part on information security and supply chain security.

This final rule does not implement any information security or supply chain security policies or procedures. The purpose of this rule is to establish a new FAR part to consolidate the policies and procedures for prohibitions, exclusions, supply chain risk information sharing, and safeguarding information that addresses security objectives.

This final rule went into effect on May 1, 2024. (89 Fed. Reg. 22,604 (Apr. 1, 2024)).

FAR Final Rule on Sustainable **Procurement**

On April 22, 2024, the FAR Council published a final rule to amend the FAR to restructure and update the regulations to focus on current environmental and sustainability matters and to implement a requirement for agencies to procure sustainable products and services to the maximum extent practicable.

This final rule is a result of Executive Order 14057, which directs agencies to reduce emissions, promote environmental stewardship, support resilient supply chains, drive innovation, and incentivize markets for sustainable products and services by purchasing sustainable products and services. The rule dedicates FAR part 23 to environmental matters by removing unrelated content and moving related content to the part. It also creates a new contract clause at FAR 52.223-23, Sustainable Products and Services and adds a definition of sustainable procurement to FAR 2.101.

This final rule went into effect on May 22, 2024. (89 Fed. Reg. 30,212 (Apr. 22, 2024)).

70



DFARS Final Rule on Use of **Fixed-Price Contracts for Certain Major Defense Acquisition Programs**

On April 25, 2024, the DoD published a final rule to amend the Defense Federal Acquisition Regulation Supplement (DFARS) to implement section 808 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2023. Generally, this rule prohibits the government from procuring more than one low-rate initial production lot associated with a major defense acquisition program, unless waived by the government.

The prohibition occurs if, at the time of Milestone B approval, the milestone decision authority authorizes the use of a fixed-price type contract and the scope of work of the fixed-price contract includes both development and low-rate initial production of items associated with such major defense acquisition program. DoD's assessment is that this rule does not impact contractor operations but may limit contractor risk assumed under a major defense acquisition program because the contractor does not have to propose prices for multiple production lots of an item before the development and initial production of that item are complete.

This final rule went into effect on April 25, 2024. (89 Fed. Reg. 31,656 (Apr. 25, 2024)). See more about this in the Sustainable Procurement column on page 62 of this issue.

DFARS Proposed Rule on **Updating Challenge Period** for Validation of Asserted **Restrictions on Technical Data** and Computer Software

On April 25, 2024, the DoD published

a proposed rule to amend the DFARS to implement section 815(b) of the NDAA for FY 2012. This proposed rule increases the validation period for asserted restrictions from three to six years and provides an exception to the prescribed time limit for validation of asserted restrictions if the technical data is the subject of a fraudulently asserted use or release restriction.

This proposed rule amends the clauses at DFARS 252.227-7019, Validation of Asserted Restrictions Computer Software, and DFARS 252.227-7037, Validation of Restrictive Markings on Technical Data. It does not impose any new requirements on contracts at or below the Simplified Acquisition Threshold (SAT) for commercial products including Commercial Off-the-Shelf (COTS) items or for commercial services.

Comments closed for this proposed rule on June 24, 2024. A virtual public meeting was held on May 17, 2024. (89 Fed. Reg. 31,686 (Apr. 25, 2024)).

DFARS Proposed Rule on **Modification of Prize Authority** for Advanced Technology **Achievements**

On April 25, 2024, the DoD published a proposed rule to amend the DFARS to implement section 822 of the NDAA for FY 2022. This proposed rule provides procedures and approval and reporting requirements for contracts awarded as prizes for advanced technology achievements.

This proposed rule grants the DoD authority to implement advanced technology prize programs to award contracts in recognition of outstanding achievements in basic,

advanced, and applied research; technology development; and prototype development. Award of a contract as a prize is considered a competitive procedure if the solicitation is widely advertised. Award of advanced technology prizes requires approval when exceeding \$10,000 and congressional reporting when exceeding \$10 million.

Comments closed for this proposed rule on June 24, 2024. (89 Fed. Reg. 31,680 (Apr. 25, 2024)).

DFARS Proposed Rule on **Preference for United States** Vessels in Transporting by Sea

On April 25, 2024, the DoD published a proposed rule to amend the DFARS to implement section 1024 of the NDAA for FY 2021. This proposed rule is intended to increase compliance with military cargo preference requirements.

This proposed rule primarily clarifies circumstances when the DoD may seek a waiver from the basic requirement for DoD supplies to be transported by sea in vessels belonging to the United States or vessels of the United States. A waiver of this requirement is permitted where such vessels are either not available at a fair and reasonable rate or are otherwise not available. The rule also modifies the requirement for reflagging or repair work in the United States for vessels used under time charter contracts for the transportation of supplies and adds a requirement to ensure contractor compliance with 10 U.S.C. 2631.

Comments closed for this proposed rule on June 24, 2024. (89 Fed. Reg. 31,681 (Apr. 25, 2024)). CM

Just 'Make It Flv



or this month's innovation issue of Contract Management

By Will Roberts

magazine, I thought it fitting to compare an old government success in innovation to our innovation challenges today. In the archives of government contracting, the story of the Wright brothers and their pioneering agreement with the U.S. Army was a foundational moment for what we now term the Performance Work Statement (PWS). This 1908 contract might not have been bundled with the jargon and clauses familiar to any who dare navigate the Federal Acquisition Regulation (FAR) today, but it was an exemplar of innovation-driven procurement.

The Wright brothers' contract was breathtakingly simple: it required the delivery of a "flying machine" capable of carrying two people at a speed of 40 miles per hour and remaining airborne for at least an hour. At the time, "airplane" was a term yet to enter the common vernacular and the notion of humans taking flight was just shy of miraculous. The government knew what it needed flight – but had no preset notion of how it should be achieved. It was a prime example of a PWS before the term even existed, as it focused solely on results, not methods.1

The contract itself was a mere three pages.² Yes, just three pages launched thousands of flights that won major world wars! It stated the need and left the "how" to the Wright brothers, who were free to innovate without being shoehorned into predefined methods or technologies.

Fast forward to today, when we may ask, "Is this scenario flipped?" The government tends to over-specify requirements, especially in fields like software development or artificial intelligence integration. Modern contracts can be encyclopedic, stipulating not just what is needed but detailing how it should be done, sometimes down to the coding language or platform. This micromanagement can stifle innovation, forcing cutting-edge technology companies to retrofit solutions or just walk away from opportunities. It's almost as if Other Transaction Authority was the government's way of saying to nontraditional companies, "Hey guys, wait, come back! We were just kidding with this 'FAR' stuff!"

The Wright brothers were fortunate to contract in an era unburdened by such constraints. Their contract simply required that their machine fly. Humorously, if the Wright brothers were working today,

they might find themselves entangled in FAR clauses about the color of the plane's seat belts or the need for the airplane to be compatible with Microsoft 365. One can only imagine Orville Wright navigating a 200-page request for proposal (RFP) requiring the biplane to be electric, energy efficient, and feature a hybrid propeller capable of cloud data integration.

As we venture forth, perhaps we should channel a bit of that 1908 spirit. Let's aim for simplicity in how we solicit innovation, focusing on what we need rather than prescribing how it should be done. This would not only honor the legacy of the Wright brothers but also propel us toward the next great breakthrough. After all, if government contracts can once again be as simple as stating, "Make it fly," who knows what heights we might reach? CM

Will Roberts is Director of Acquisition Solutions for ASI Government and runs the ASI Education Channel at www.youtube. com/@asi.education.

ENDNOTES

- Federal Acquisition Regulation 37.602
- Nagle, James. A History of Government Contracting, Vol. 1. Government Training Inc, 2012, 190



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JULY 2024

Innovation

Innovative contracting practices, technology and regulations. Includes removing barriers to nontraditional suppliers; innovation hubs, sherpa firms, and consortia; building the innovation base; other transaction authority; commercial solutions openings; middle tier of acquisition; SBIR/STIR; and venture capital.

AUGUST 2024

Supply Chain

Trends, risks, challenges, and solutions affecting all tiers of the supplier network – from raw materials to finished products. Explores vulnerabilities such as geopolitical instability and shocks, financial fragility, product complexity, and mapping approaches and technology, transparency, friend-shoring, and security.

SEPTEMBER 2024

Artificial Intelligence

Buyer and seller AI concerns: finding and ranking suppliers, AI buying techniques, understanding AI limitations, contracting tools, agency and company policies, large language models, machine learning, data and intellectual property rights, natural language processing, generative tools, bots, and more.

OCTOBER 2024

The Software Challenge

Embedded, enterprise, cloud, developmental, and legacy software is hard to buy and manage. A look at licenses, as-a-service, cybersecurity, bills of material, agile, the software acquisition path, and other facets of the challenge.

NOVEMBER 2024

Acquisition Workforce

From onboarding to retirement, the war for talent to remote work, and workload stress to mentoring, matters affecting how contract management professionals are measured, managed, paid, promoted, led, and educated.

DECEMBER 2024

Future of Contracting

Explorations of how the contracting profession is changing, and visions of where it is going. Regulatory and legal trends; surprises; the effect of political, economic, and administrative changes; foresight and retrospection.

JANUARY 2025

Back to Basics

Contract management covers the entire lifecycle of a contract, from the initial request and planning stages to execution, monitoring, and closure. Mastering the fundamentals of contract management is crucial for success, whether you're a beginner or a seasoned professional.

FEBRUARY 2025

Connected Acquisition Teams

Connected acquisition teams foster collaboration and shared understanding throughout the contract lifecycle. This team approach brings together diverse expertise from program managers, legal experts, IT specialists, financial analysts, HR professionals, and contract managers, among others. By unifying these stakeholders, connected acquisition teams enable seamless communication and decision-making, ensuring contracts are successfully executed and achieve desired outcomes.

MARCH 2025

Market Intelligence

Market intelligence is a crucial part of acquisition planning and category management. It involves analyzing markets and companies to determine whether the current vendors can meet demand or if new vendors and/or acquisition approaches are needed. This knowledge helps organizations make strategic decisions and ensure they have the available resources and capabilities to meet their goals.

APRIL 2025

Procurement

Procurement faces a complex landscape with challenges at every stage. Geopolitical instability, financial volatility, and complex supply chains create vulnerabilities. To address these, procurement teams must utilize technology, data analysis, and collaboration to ensure transparency, security, and efficiency while mitigating risks.

MAY 2025

Small Business

Small businesses are crucial to the industrial base, driving innovation and economic growth. Understanding industry and government trends is key to creating policies that support their growth. Tailored flexibilities like streamlined regulations and accessible funding empower small businesses to thrive, ultimately strengthening the entire industrial base.

JUNE 2025

Cost and Pricing

Capabilities and practices for ensuring fair and reasonable pricing through cost and price analysis. Considers government Cost Accounting Standards-approved accounting systems, the Truth in Negotiations Act, forensic analysis, vendor management, prices-paid data, and compliance challenges.

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Don't start your procurements from scratch.

