



"In the middle of difficulty lies opportunity"

*Albert Einstein*

# EXPANDING THE COMPETITIVE SPACE

SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

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Ms. Lisa Sanders, Director, Science & Technology

**SCIENCE & TECHNOLOGY ENGAGEMENTS & OPPORTUNITIES**



# **SOF AT&L-ST Vision**

## **Innovate for Future Threats**

**Relentlessly Discover, Develop, Adapt and Employ  
Next Generation Technologies that Provide SOF  
an Overwhelming Competitive Advantage**

**Modernization of SOF – Prepare Today to Win Tomorrow**

# Science & Technology Budget

## Applied Research (BA2) & Advanced Technology Development (BA3)

- **BA2:** Studies, Early Laboratory Hardware, Software Development Models, Concept Exploration. Technology Readiness Level (TRL) 3-5
- **BA3:** Operational Prototypes, Advanced Technology Demonstrations, Technical Experimentation, Technology Insertions. TRL 5-7

### ACQUISITION STRATEGY

- Various (Competition, IDIQ, CRADA, Prize Challenges, etc.)
- External Leveraging (OGAs, Services, Laboratories)

### PERIOD OF PERFORMANCE

- Project Dependent
- Emphasizing Tech Discovery, PEO TIRs needs, and game-changing technology development

### MILESTONES

- Project Dependent

### POINT OF CONTACT

- USSOCOM SOF AT&L, Engage SOF (eSOF)  
(813) 826-9482

### FUNDING

- FY20 BA2/BA3: \$37.6M/\$94.8M = \$132.4M
- FY21 BA2/BA3: \$42.5M/\$89.1M = \$131.6M

### CURRENT CONTRACT/OEM

- Various

# Innovation in USSOCOM

## INCREMENTAL

New, improved, refined products or services closely tied to current capabilities

What Matters: *Speed*

Center of Gravity:  
*Program Executive Offices*

0 – 2 Years



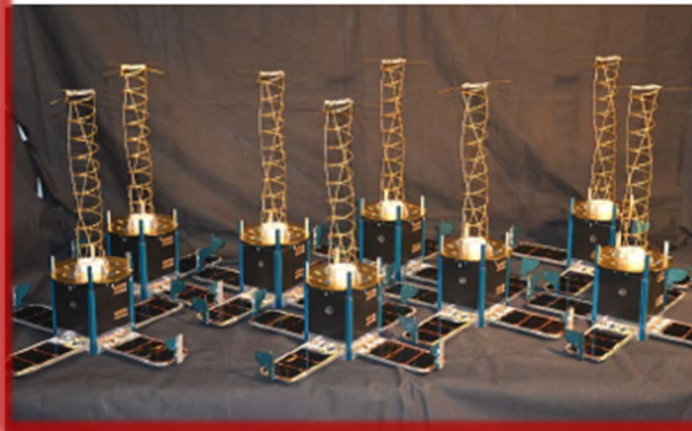
## TRANSFORMATIONAL

Creation of entirely new capabilities

What Matters: *Vision*

Center of Gravity:  
*Science and Technology*

2 – 7 Years



## ADJACENT

Expansion to an “adjacent” non-traditional technology / processes area

What Matters: *Discovery*

Center of Gravity:  
*SOFWERX*

0 – 7 Years

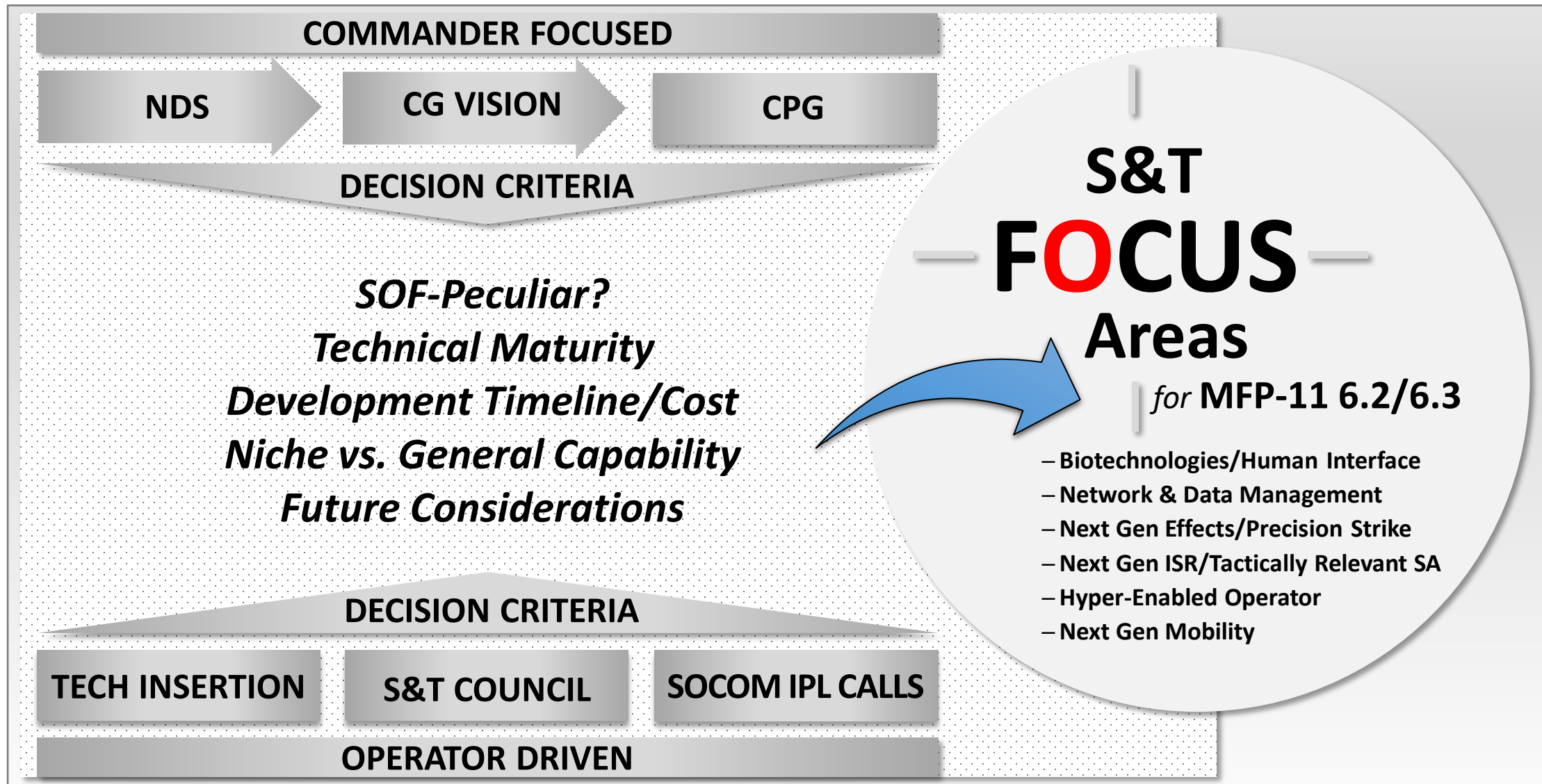


# S&T Major Drivers/Activities

- S&T Aligned with Strategy
- Connected to Users
- Integrated with Acquisition
- Cohesive Response for all SOCOM Efforts



# SOF Priority Considerations



# S&T Futures Process

## ? Results

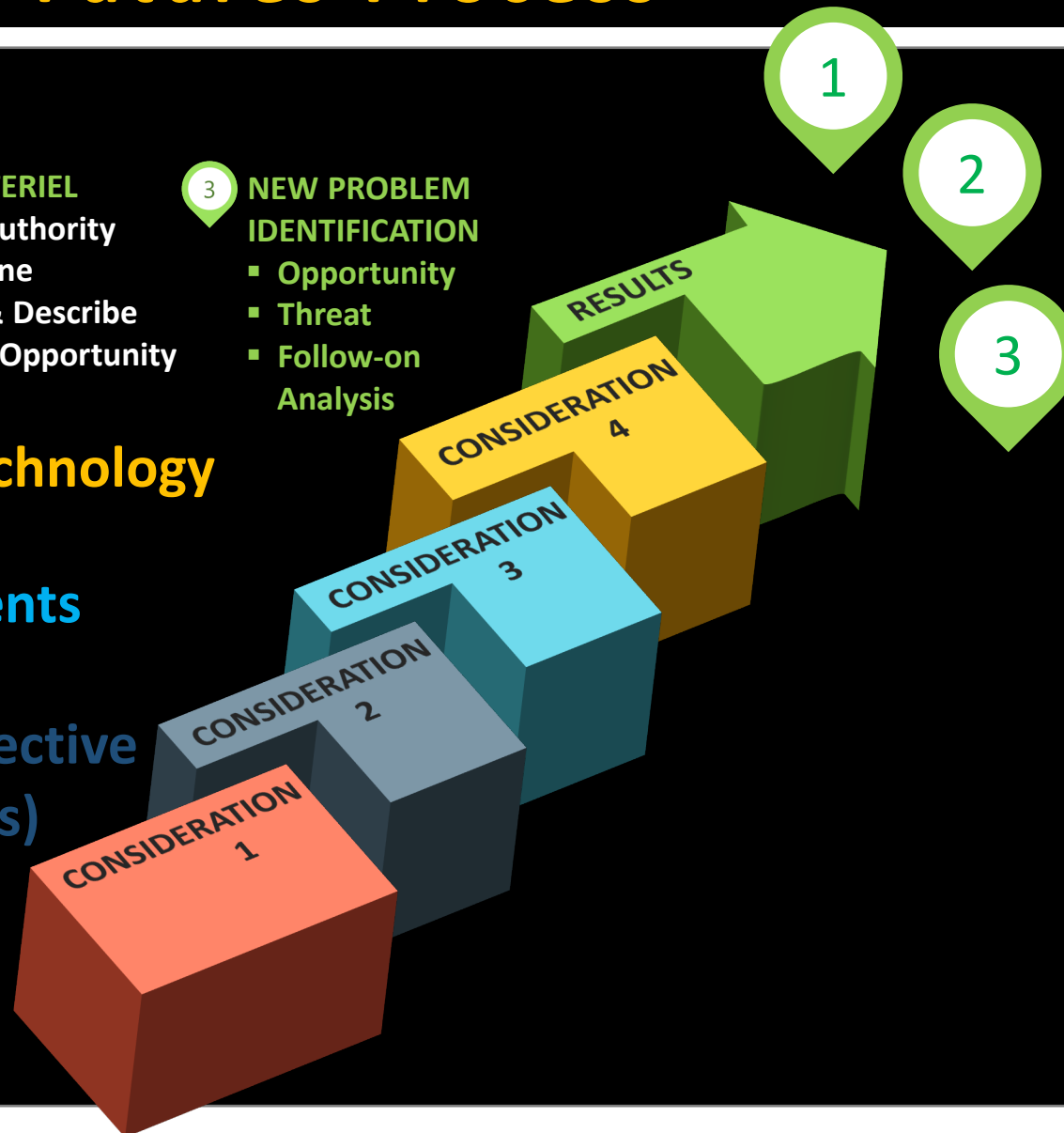
- |  |  |   |
|--|--|---|
| <p>1 MATERIEL APPROACHES</p> <ul style="list-style-type: none"> <li>▪ Leap Ahead</li> <li>▪ Asymmetric</li> <li>▪ Divergent</li> </ul> | <p>2 NON-MATERIEL</p> <ul style="list-style-type: none"> <li>▪ Policy, Authority &amp; Doctrine</li> <li>▪ Assess &amp; Describe Impact/Opportunity</li> </ul> | <p>3 NEW PROBLEM IDENTIFICATION</p> <ul style="list-style-type: none"> <li>▪ Opportunity</li> <li>▪ Threat</li> <li>▪ Follow-on Analysis</li> </ul> |
|--|--|---|

## ? Rapidly Changing Technology

## ? Changing Environments

## ? Varying Mission Objective (Measures of Success)

## ? Changing Strategic Conditions



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# Innovation Foundry (IF) and other Futures Events

- **IF5's Virtual Rapid Capability Assessment (vRCA), 27 APR – 01 MAY 2020**  
Exploration and decomposition of concepts brainstormed during IF5 and associated topics as they relate to discerning future capability areas for tech exploration for SOF in their conduct of Unconventional Warfare (UW)
- **IF6: 3Q 2020. Location TBD.**
- **Diverse Participants**
  - Academia/Industry/Users/SMEs
- **Linkage**
  - Project Development, Experiment Themes, Future CONOPs development, S&T IPL (STIPL) Development



**Design Thinking Activity Linked to SOCOM Enterprise Needs**



# S&T POCs

## Capability Focus Areas (CFAs):

### **Next Generation Intelligence, Surveillance, and Reconnaissance (ISR)/Tactically Relevant Situational Awareness:**

Focuses on ISR and Tactical Situational Awareness at the “Edge.”

Contact: Lead-Dr. Conrad Lovell, [conrad.lovell.civ@socom.mil](mailto:conrad.lovell.civ@socom.mil)

### **Network and Data Management:**

Focuses on Cyber, Artificial Intelligence (AI)/Machine Learning (ML), and Big Data Analytics.

Contacts: Peter Depa, [peter.depa@socom.mil](mailto:peter.depa@socom.mil); Barton Graham, [barton.graham@socom.mil](mailto:barton.graham@socom.mil)

**Biotechnologies/Human Interface:** Focuses on Combat Casualty Care, Real-Time Medical Monitoring, and Maintaining Optimal SOF Operator Performance.

Contact: Lead-Douglas Simpson, [douglas.simpson@socom.mil](mailto:douglas.simpson@socom.mil)

**Next Generation Effects/Precision Strike:** Focuses on Problems Related to Weapons for SOF Use, Ammunition, Precision Munitions, and Devices for Scalable Effects.

Contact: Lead-Jack Plessinger, [jack.plessinger@socom.mil](mailto:jack.plessinger@socom.mil)

## Cross Cutting CFAs:

**Joint Acquisition Task Force (JATF) Hyper-Enabled Operator (HEO):** Focuses on HEO in the cognitive domain by increasing SA, reducing cognitive load, and accelerating decision making at the edge.

Contacts: Lead-COL Ryan Barns, [ryan.barns@socom.mil](mailto:ryan.barns@socom.mil); James McKinlay, [james.mckinlay@socom.mil](mailto:james.mckinlay@socom.mil)

**Next Generation Mobility:** Focuses on developing capabilities for SOF operators/mobility platforms to remain undetected in any way.

Contact: Lead-James Griffin, [james.griffin@socom.mil](mailto:james.griffin@socom.mil)

# S&T Broad Agency Announcement (BAA)

- S&T's BAA posted in April and will close on 21 May
- S&T BAA Areas of Interest:
  - Biotechnologies/Human Interface
  - Hyper Enabled Operator
  - Network & Data Management
  - Next Generation Effects/Precision Strike
  - Next Generation ISR/Tactically Relevant Situational Awareness
  - Next Generation Mobility



**USSOCOM Link: <https://www.socom.mil/SOF-ATL/Pages/baa.aspx>**

# FY20 S&T Virtual Symposium

- Overview
- Capability Focus Areas:
  - Biotechnologies/Human Interface
  - Hyper Enabled Operator
  - Network & Data Management
  - Next Generation Effects/Precision Strike
  - Next Generation ISR/Tactically Relevant Situational Awareness
  - Next Generation Mobility




UNCLASSIFIED

"In the middle of difficulty lies opportunity"  
Albert Einstein

SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS  
*Win • Transform • People*

SOF AT&L-ST Virtual Symposium




UNCLASSIFIED

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Our most recent Virtual Symposium reflects our FY20 investment requirements and was posted in late April. Users must register in order to be able to view the audio/video. Register at: <https://www.socom.mil/SOF-ATL/Pages/Virt-Symp.aspx>

# Technical Experimentation (TE)

- **TE 20-3, 13-17 July 2020 at RELLIS Campus of Texas A&M University, College Station, TX**
  - Experimentation Focus: Network and Data Management, Unmanned Aerial Systems
- **TE 21-1, 16-20 November 2020 at Key West, FL**
  - Experimentation Focus: Combat Diver, Counter Diver, Biotechnologies/ Human Interface
- **TE 21-2, 22-26 March 2021 at Muskatatuck, IN**
  - Experimentation Focus: Next Generation ISR/Tactically Relevant SA, Biotechnologies/Human Interface, SOF Lethality
- **TE 21-3, 12-16 July 2021 at Little Creek, VA**
  - Experimentation Focus: Combatant Craft
- **Public Link:**  
<https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx>
- **Linked  Group: SOCOM Technical Experimentation**



# USSOCOM CRADAs

- **CRADA is between USSOCOM and US Parties**
- **Overarching CRADA**
  - Formulated to provide general access to USSOCOM gaps/needs to foster collaboration – must be consistent with missions of organization
  - Allows for the formulation and execution of Individual Work Plans (IWP) between the Collaborator – PEO/Directorate within SOF AT&L
  - Collaborator may request meetings with appropriate personnel to discuss IWP development – through the SOF AT&L Technical POC
  - Revised April 2020, SOF AT&L Director of S&T signed – company coordination and acceptance – generally 30 days
- **Specific (Traditional) CRADA**
  - Formulated to provide a collaboration on a specific technology
  - Follows USSOCOM Directive 70-1
  - Standard Template, unique terms and conditions
  - Specifically between collaborator and single PEO/Directorate
  - Writing and staffing is generally 90 to 120 days



**ADVANTAGE SOF**



# S&T Engagement Tools

S&T ACTIVITY	OPPORTUNITY	ENGAGEMENT
<p><b>SOF Futures Innovation Foundry Events</b> POC: Mr. Brian Sisco 813-826-2249, <a href="mailto:brian.sisco@socom.mil">brian.sisco@socom.mil</a></p>	<ul style="list-style-type: none"> <li>S&amp;T has developed an S&amp;T Futures Process</li> <li>S&amp;T conducts “Innovation Foundry” events to enable SOF’s ability to accomplish their missions 10-15 years in the future</li> </ul>	<ul style="list-style-type: none"> <li>S&amp;T plans to conduct 2-3 SOF Futures Innovation Foundry Events per Fiscal Year</li> <li>Innovation Foundry events will provide opportunities for attending and injecting disruptive technology solutions for SOF</li> </ul>
<p><b>Small Business Innovation Research (SBIR)/ Small Business Technology Transfer (STTR)</b> POC: Mr. Mina Khalil 813-826-7003, <a href="mailto:mina.khalil@socom.mil">mina.khalil@socom.mil</a></p>	<ul style="list-style-type: none"> <li>S&amp;T manages SOCOM’s SBIR/STTR programs</li> <li>Stimulates innovation for small businesses</li> <li>3 Phases, Phase I is a Study (\$150K), Phase II Prototype (\$1.5M), Phase III Commercialization</li> </ul>	<ul style="list-style-type: none"> <li><a href="https://www.socom.mil/SOF-ATL/Pages/sbir.aspx">https://www.socom.mil/SOF-ATL/Pages/sbir.aspx</a></li> <li>USSOCOM participates in three SBIR/STTR Topics Call per year (April, August, and December timeframes)</li> </ul>
<p><b>Technical Experimentation (TE) Events</b> POC: Mr. Dan Bernard 813-826-9917, <a href="mailto:dan.bernard@socom.mil">dan.bernard@socom.mil</a></p>	<ul style="list-style-type: none"> <li>Conducts 3-4 US-based events every fiscal year each with different theme(s)</li> <li>Industry opportunity to engage and demonstrate technology/concepts and get direct feedback from SOF Operators/Acquisition Professionals</li> </ul>	<ul style="list-style-type: none"> <li>Normally 1 TE Event/QTR, TE Request for Information (RFI) posted on <a href="https://beta.sam.gov">Beta.SAM.gov</a> for each TE Event</li> <li>Go to <a href="https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx">https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx</a></li> </ul>
<p><b>Cooperative Research &amp; Development Agreements (CRADA)</b> POC: Mr. Benjamin Chitty 813-826-5162, <a href="mailto:discovery@socom.mil">discovery@socom.mil</a></p>	<ul style="list-style-type: none"> <li>SOCOM employs Overarching and Specific (Traditional) CRADAs</li> <li>Legal agreement to provide general and specific access to USSOCOM needs</li> </ul>	<ul style="list-style-type: none"> <li>Allows for the formulation and execution of Individual Work Plans (IWP) between the Collaborator – PEO/Directorate within SOF AT&amp;L</li> </ul>
<p><b>Broad Agency Announcements (BAA)</b> POC: Mr. Peter Greany 813-826-7423, <a href="mailto:peter.greany@socom.mil">peter.greany@socom.mil</a></p>	<ul style="list-style-type: none"> <li>SOCOM S&amp;T Directorate/PEOs develop and post BAAs to SAM.gov that provide Areas of Interest (AOI) to Industry and other External Organizations.</li> </ul>	<ul style="list-style-type: none"> <li>S&amp;T has posted a 5 year BAA that will be periodically updated with Areas of Interest (AOI)</li> <li>Biomedical BAA currently posted through US Army</li> </ul>
<p><b>Tech Scouting Tool</b> POC: Mr. Barton Graham 813-826-6903, <a href="mailto:barton.graham@socom.mil">barton.graham@socom.mil</a></p>	<ul style="list-style-type: none"> <li>Web-based platform that enables anyone to quickly describe technology and upload supporting documentation to a secure, shared, searchable, central database</li> </ul>	<ul style="list-style-type: none"> <li>Tech Scouting Tool supports evaluation/ assessment/scoring of submitted technologies, and sharing of results</li> <li>Contact POC for instructions to register</li> </ul>
<p><b>Engage SOF (eSOF)</b> POC: Mrs. Shelvin Watts 813-826-1269, <a href="mailto:eSOF@socom.mil">eSOF@socom.mil</a></p>	<ul style="list-style-type: none"> <li>Conduit for the SOF AT&amp;L Enterprise</li> <li>Matches your company’s product/service/capability to the appropriate personnel within the command and schedules discussions or demos</li> </ul>	<ul style="list-style-type: none"> <li>Go to <a href="https://www.socom.mil/SOF-ATL/Pages/submit-your-idea.aspx">https://www.socom.mil/SOF-ATL/Pages/submit-your-idea.aspx</a> for information and link to USSOCOM Areas of Interest and for the eSOF Submitting Your Idea Form</li> </ul>

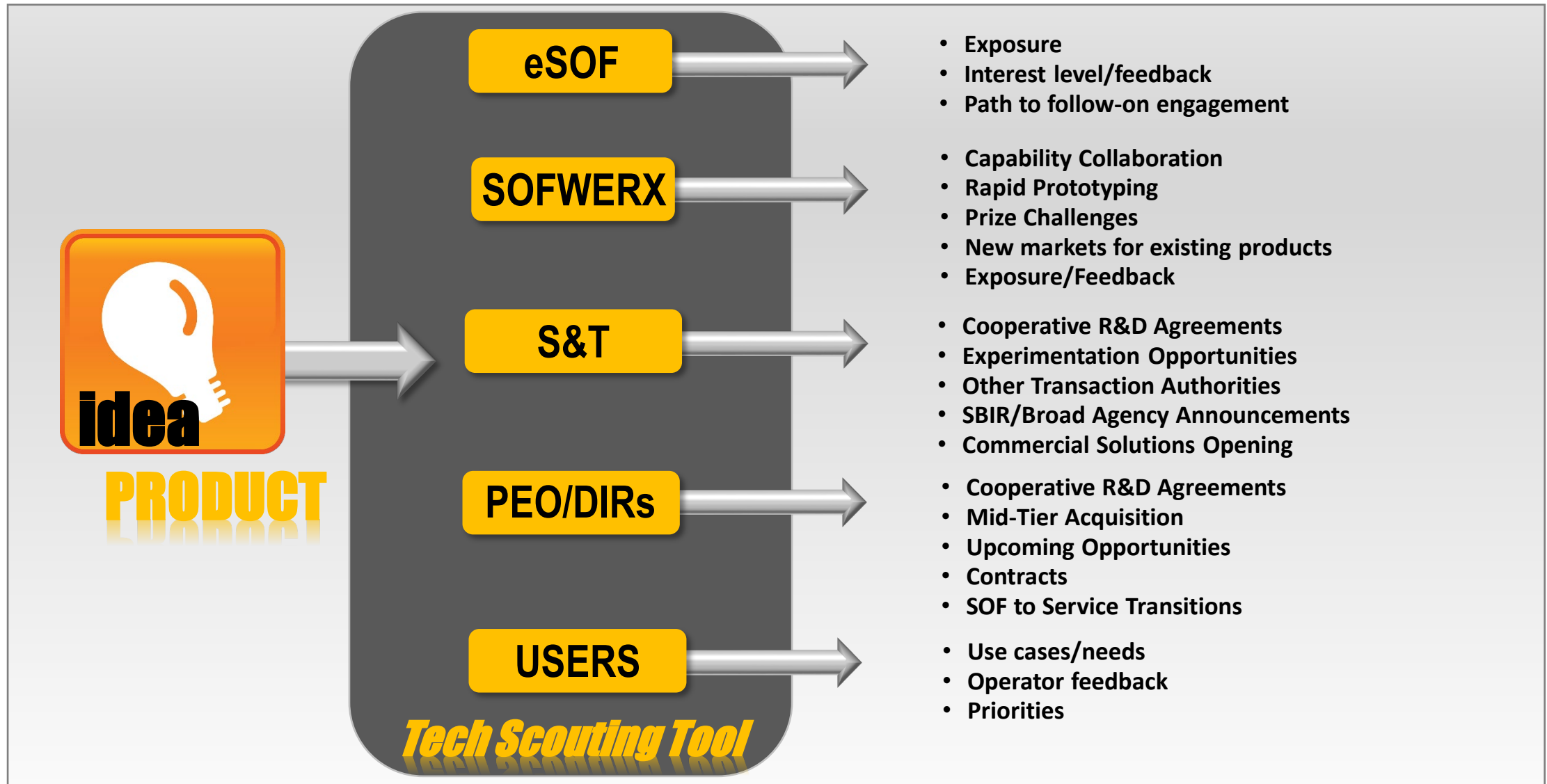
# QUESTIONS?



# BACKUPS



# Multiple Engagement Paths



# SOF NEEDS

**TE**

**eSOF**

**INNOVATION  
FOUNDRY**

**ACADEMIC  
CAPSTONE**

**SOFWERX**

**CRADA**

**SBIR  
SECTION 851**

**SOCIAL  
MEDIA**

