



"In the middle of difficulty lies opportunity"

Albert Einstein

SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Accelerating SOF Innovation

Ms. Lisa Sanders *Director, Science & Technology*

SCIENCE & TECHNOLOGY Engagements & Opportunities



SOF AT&L-ST Vision



**Discover, Enable, and Transition technologies
to provide an asymmetric advantage for
Special Operations Forces.
Hyper Enable the SOF Operator Now and
in Future Environments.**

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, Technology & Industry Liaison Office (TILO) (813) 826-9482

FUNDING

- FY19 BA2/BA3: \$36M/\$79M = \$115M
- FY20 BA2/BA3: \$41M/\$89M = \$130M

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

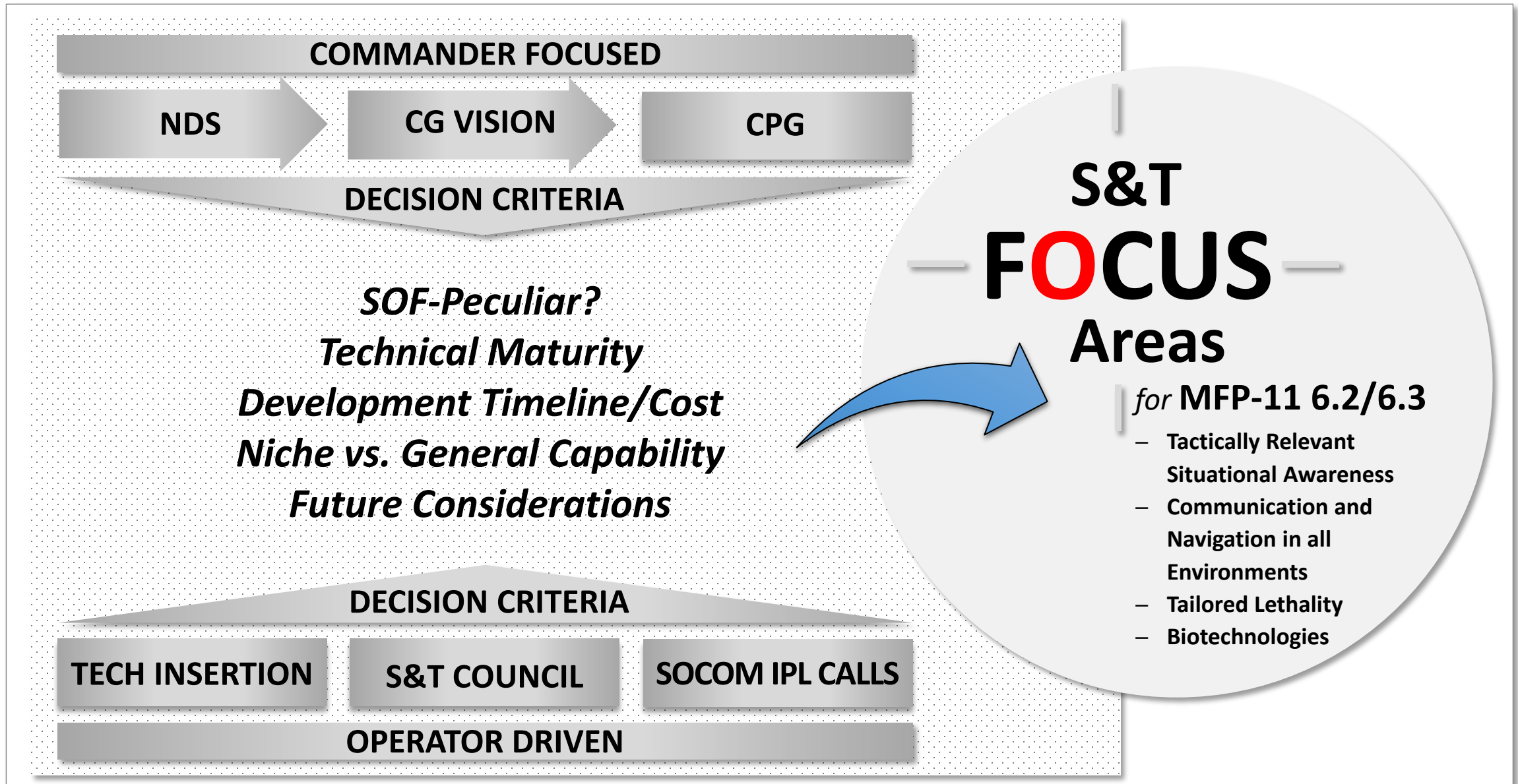


S&T Major Drivers/Activities

- 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

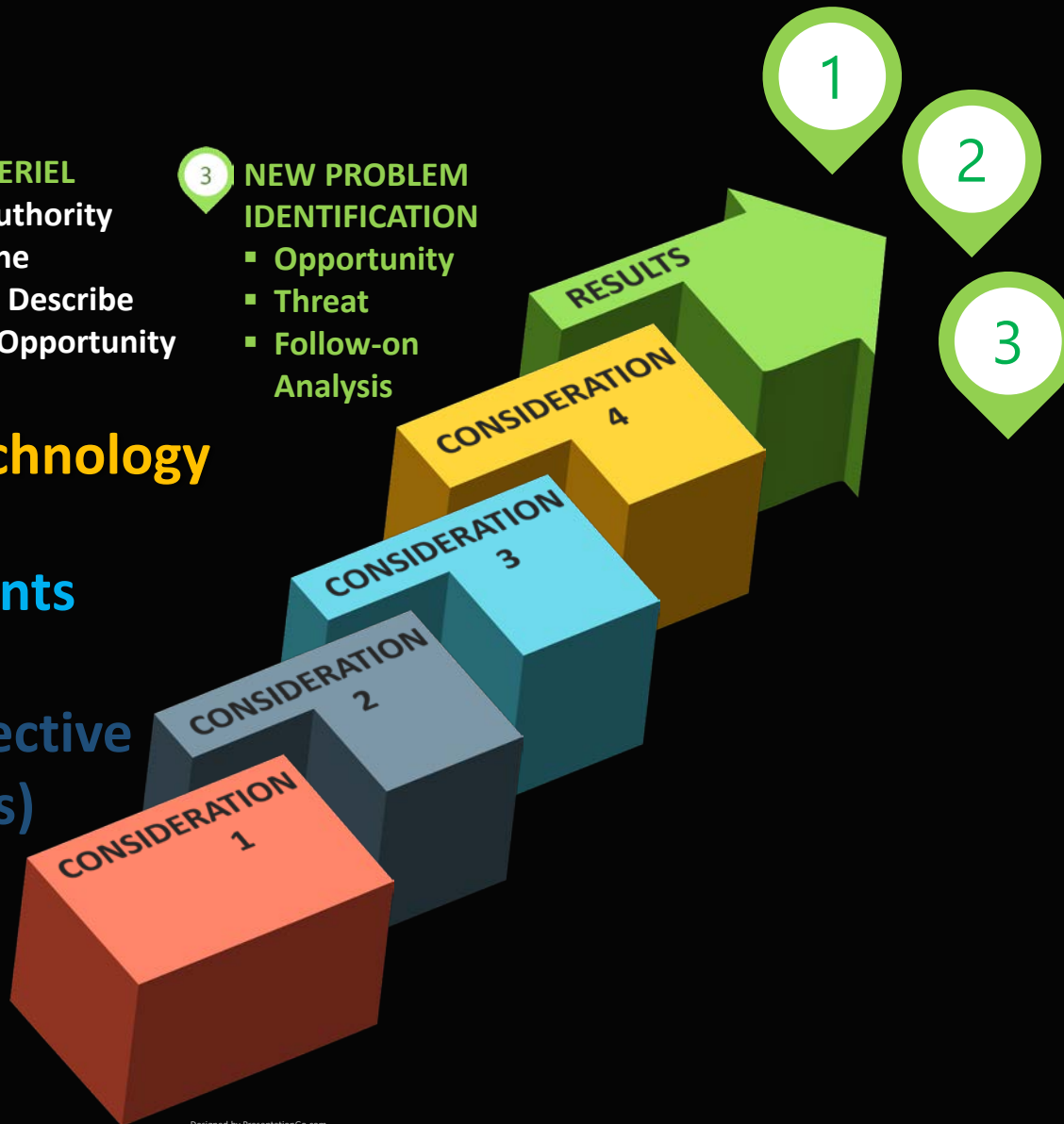
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|---|---|--|
| <p>1 MATERIEL APPROACHES</p> <ul style="list-style-type: none"> ▪ Leap Ahead ▪ Asymmetric ▪ Divergent | <p>2 NON-MATERIEL</p> <ul style="list-style-type: none"> ▪ Policy, Authority & Doctrine ▪ Assess & Describe Impact/Opportunity |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

□ Rapidly Changing Technology

□ Changing Environments

□ Varying Mission Objective (Measures of Success)

□ Changing Strategic Conditions



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Innovation Foundry (IF)

- **Conducted IF3 Event: 23-25 April 2019, Austin TX, Special Reconnaissance (SR)**
- **Time Horizon: 7-15 years in the Future**
- **Diverse Participants**
 - Technical
 - Academia
 - Users
 - SMEs
- **Linkage**
 - Project Development
 - Experiment Themes
 - Future CONOPs
 - Basic Research Desires - S&T IPL (STIPL) Development



Design Thinking Activity Linked to SOCOM Enterprise Needs

S&T POCs

Capability Focus Areas:

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

Contact: Lead-Dr. Conrad Lovell, conrad.lovell.civ@socom.mil

Network and Data Management:

Contacts: Lead-Jamila Patterson, jamila.patterson@socom.mil; Barton Graham, barton.graham.ctr@socom.mil

Biotechnologies/Human Interface:

Contact: Lead-Douglas Simpson, douglas.simpson@socom.mil

Next Generation Effects/Precision Strike:

Contact: Lead-Jack Plessinger, jack.plessinger@socom.mil

Cross Cutting Technology Areas:

Joint Acquisition Task Force (JATF) Hyper-Enabled Operator (HEO)

Contacts: Lead-COL Alex Maccalman, alex.maccalman@socom.mil;

LCDR Allison Moon, allison.moon@socom.mil

Next Generation Mobility

Contact: Lead-James Griffin, james.griffin@socom.mil

SOF Hard Problems

USSOCOM

SCIENCE AND TECHNOLOGY - PREPARING FOR THE FUTURE 2020-2030



SPECIAL OPERATIONS COMMAND WANTS YOUR HELP SOLVING THEIR HARD PROBLEMS



United States Special Operations Command's Science and Technology (S&T) Directorate has developed three Special Operations Forces (SOF) Hard Problems that are of critical importance to SOF missions. They are: **Small Unit Dominance, Mission Assured Communications, and Signature Management.** The three SOF Hard Problems are available for download at: <https://www.socom.mil/SOF-ATL/Pages/SOF-Hard-Problems.aspx>.

If you think you've got a solution that can help USSOCOM's S&T Directorate solve some or all of the SOF Hard Problems please reply via their **Hard Problems mailbox** also located on that same website. Please feel free to distribute this information to interested parties that could provide potential solutions to these S&T SOF "Hard Problems."

S&T Broad Agency Announcement (BAA)

- **S&T BAA Closes: 12:00 NOON EST, 14 June 2019**

- **S&T BAA Areas of Interest:**

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



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

FY20 S&T Virtual Symposium

- **Director's Overview**
- **Capability Focus Areas:**
 - Next Generation ISR/Tactically Relevant Situational Awareness
 - Network & Data Management
 - Biotechnologies/Human Interface
 - Next Generation Effects/Precision Strike
- **Cross Cutting Technology Areas**
 - JATF Hyper Enabled Operator
 - 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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The banner features a silhouette of a soldier in a crouching position against a night sky with a full moon and stars. Below the image, the text reads: "In the middle of difficulty lies opportunity" Albert Einstein. Below that, it says "SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS" and "Win • Transform • People". The main title "SOF AT&L-ST Virtual Symposium" is prominently displayed. To the right is the official seal of the Special Operations Forces Acquisition, Technology, & Logistics (S&T) command, which includes the text "UNITED STATES", "S&T", and "SPECIAL OPERATIONS FORCES ACQUISITION, TECHNOLOGY, & LOGISTICS".

Register At: <https://www.socom.mil/SOF-ATL/Pages/Virt-Symp.aspx>

Technical Experimentation (TE)

- **TE 19-3, 15-19 July 2019 at the Rellis Campus of Texas A&M University, College Station, TX.**
 - Experimentation Focus: C4, Small Unmanned Aerial Systems (UAS), Hyper-Enabled Operator, and 360 Degree Situational Awareness
- **TE 20-1, 18-22 November 2019 at Key West, FL.**
 - Experimentation Focus: Combat Swimmer-Diver and Human Performance
- **Public Link:**
<https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx>
- **Linked  Group: SOCOM Technical Experimentation**

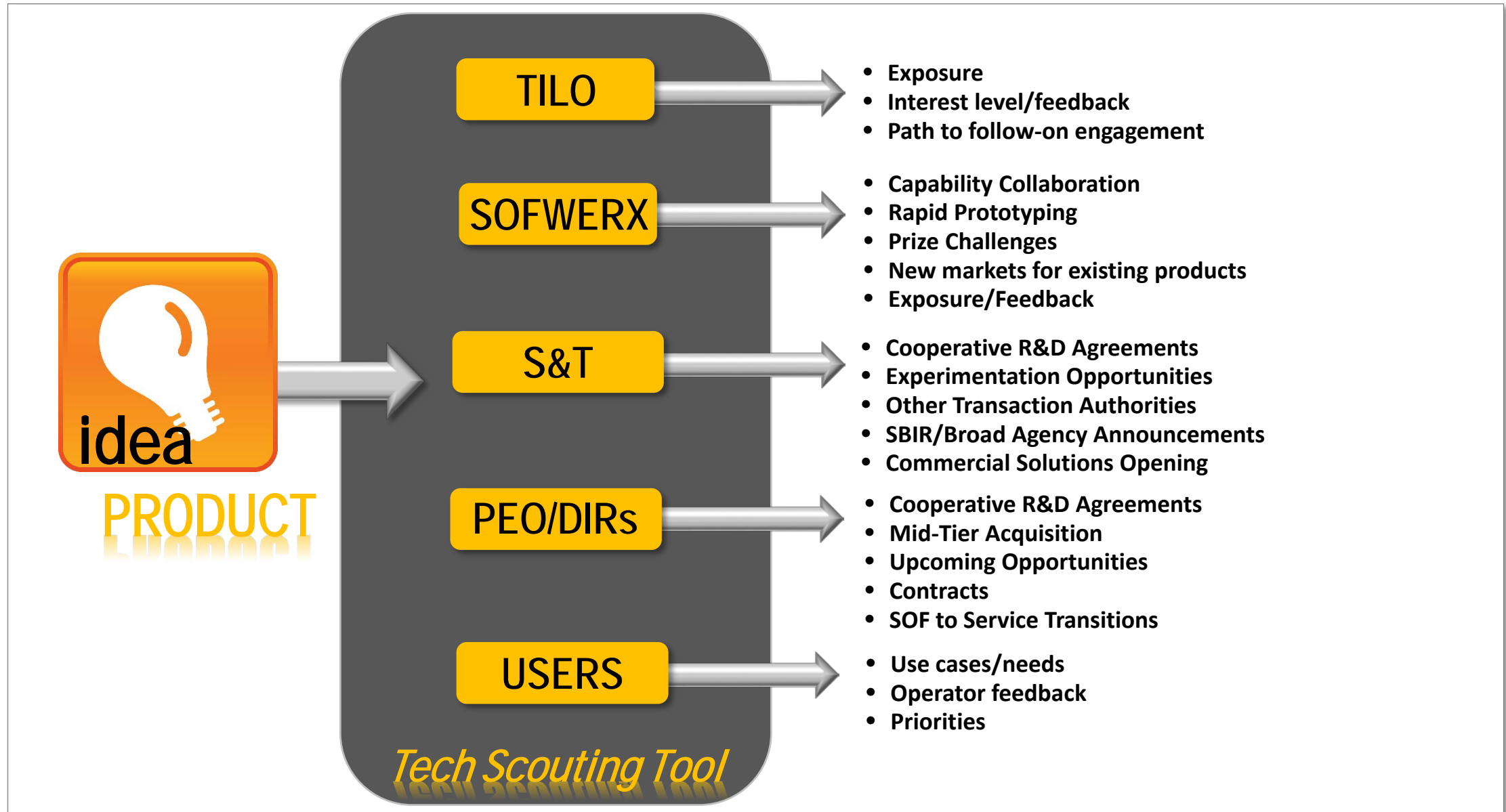


USSOCOM CRADAs

- **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
 - SOF AT&L Acquisition Executive 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
 - Specifically between collaborator and single PEO/Directorate
 - Writing and staffing is generally 90 to 120 days



Multiple Engagement Paths



S&T Engagement Tools

| | | |
|--|--|---|
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| <p>SOF Futures Innovation Foundry Events POC: CDR Brian Sisco 813-826-2249, brian.sisco@socom.mil</p> | <ul style="list-style-type: none"> • S&T has developed an S&T Futures Process • S&T conducts “Innovation Foundry” events to enable SOF’s ability to accomplish their missions 7-15 years in the future | <ul style="list-style-type: none"> • S&T plans to conduct 2-3 SOF Futures Innovation Foundry Events per Fiscal Year • Innovation Foundry events will provide opportunities for attending and injecting disruptive technology solutions for SOF |
| <p>Small Business Innovation Research (SBIR)/ Small Business Technology Transfer (STTR) POC: Mr. Anthony Aldrich 813-826-9150, anthony.aldrich@socom.mil</p> | <ul style="list-style-type: none"> • S&T manages SOCOM’s SBIR/STTR programs • Stimulates innovation for small businesses • 3 Phases, Phase I is a Study (\$150K), Phase II Prototype (\$1.5M), Phase III Commercialization | <ul style="list-style-type: none"> • https://www.socom.mil/SOF-ATL/Pages/sbir.aspx • USSOCOM participates in three SBIR/STTR Topics Call per year (April, August, and December timeframes) |
| <p>Technical Experimentation (TE) Events POC: Mr. Dan Bernard 813-826-9917, dan.bernard@socom.mil</p> | <ul style="list-style-type: none"> • Conducts 3-4 US-based events every fiscal year each with different theme(s) • Industry opportunity to engage and demonstrate technology/concepts and get direct feedback from SOF Operators/Acquisition Professionals | <ul style="list-style-type: none"> • Normally 1 TE Event/QTR, TE Request for Information (RFI) posted on FBO.gov for each TE Event • Go to https://www.socom.mil/SOF-ATL/Pages/technical-experimentation.aspx |
| <p>Cooperative Research & Development Agreements (CRADA) POC: Mr. Benjamin Chitty 813-826-5162, discovery@socom.mil</p> | <ul style="list-style-type: none"> • SOCOM employs Overarching and Specific (Traditional) CRADAs • Legal agreement to provide general and specific access to USSOCOM needs | <ul style="list-style-type: none"> • Allows for the formulation and execution of Individual Work Plans (IWP) between the Collaborator – PEO/Directorate within SOF AT&L |
| <p>Broad Agency Announcements (BAA) POC: Mr. Peter Greany 813-826-7423, peter.greany@socom.mil</p> | <ul style="list-style-type: none"> • SOCOM S&T Directorate/PEOs develop and post BAAs to FBO.gov that provide Areas of Interest (AOI) to Industry and other External Organizations | <ul style="list-style-type: none"> • S&T BAA posts in April with Quarterly Updates • Biomedical BAA currently posted through US Army |
| <p>Tech Scouting Tool POC: Mr. Barton Graham 813-826-6903, barton.graham@socom.mil</p> | <ul style="list-style-type: none"> • Web-based platform that enables anyone to quickly describe technology and upload supporting documentation to a secure, shared, searchable, central database | <ul style="list-style-type: none"> • Tech Scouting Tool supports evaluation/ assessment/scoring of submitted technologies, and sharing of results • Contact POC for instructions to register |
| <p>Technology & Industry Liaison Office (TILO) POC: Mrs. Shelvin Watts 813-826-1269, shelvin.watts@socom.mil</p> | <ul style="list-style-type: none"> • Conduit for the SOF AT&L Enterprise • Matches your company’s product/service/capability to the appropriate personnel within the command and schedules discussions or demos | <ul style="list-style-type: none"> • Go to https://www.socom.mil/SOF-ATL/Pages/submit-your-idea.aspx for information and link to USSOCOM Areas of Interest and for the TILO Submitting Your Idea Form |



QUESTIONS?

