



"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

**USSOCOM DISRUPTIVE TECHNOLOGIES**



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

## **Innovate for Future Threats**

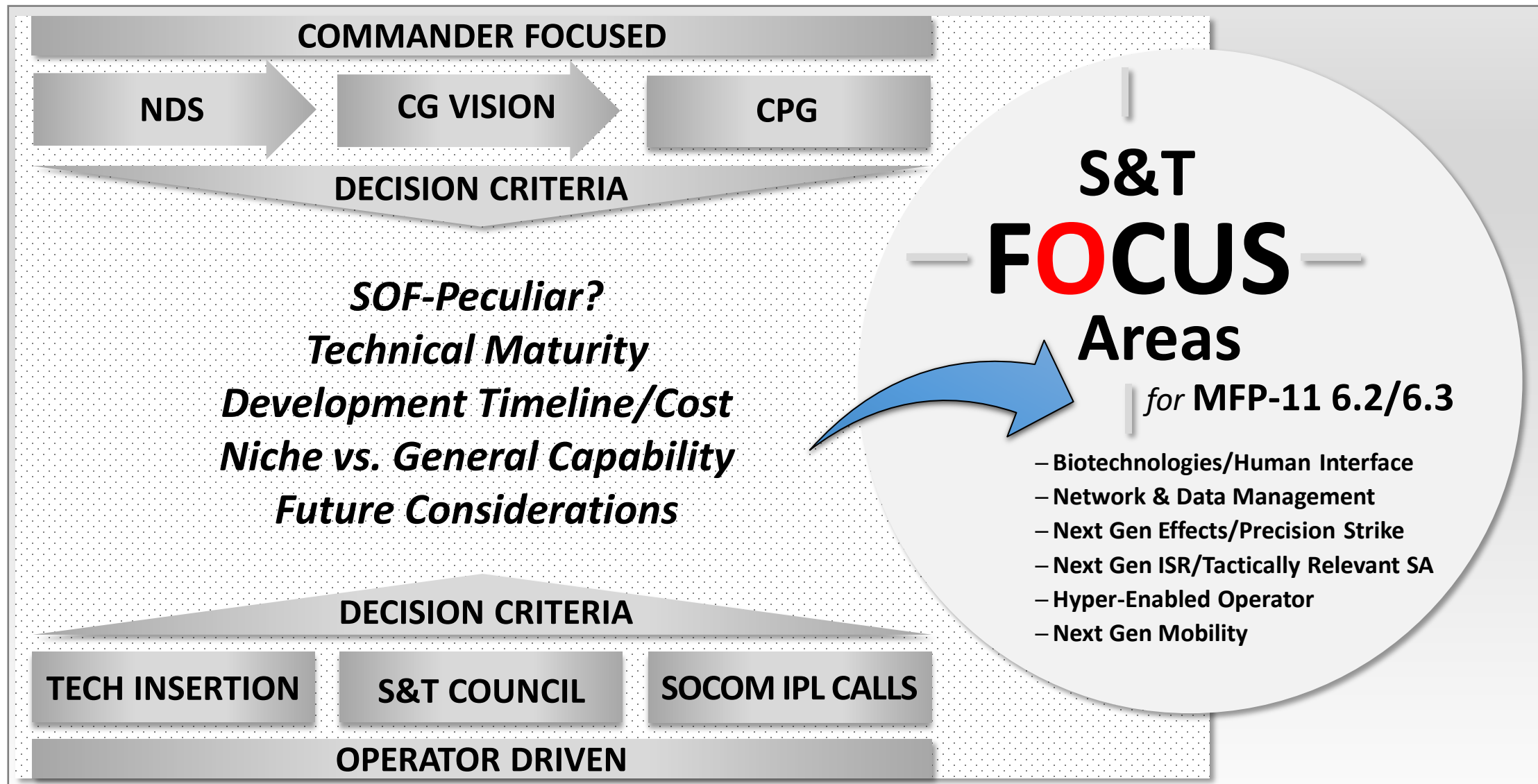
**Relentlessly Discover, Develop, Adapt and Employ  
Next Generation Technologies that Provide SOF  
an Overwhelming Competitive Advantage**

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

# Agenda

- **SOF Priority Considerations**
- **Strategic Engagement**
- **Futures**
- **Joint Acquisition Task Force (Hyper Enabled Operator)**
- **Technical Experimentation (TE)**

# SOF Priority Considerations



# Strategic Engagement

## • Disruptive Technology Questions

- What are the disruptive technologies SOF should care about?
- What are the critical disruptive technology intersections for SOF?
- How would we counter an adversaries' disruptive technologies?

## • Example Technologies

- Autonomy
- Artificial Intelligence
- Intelligent Teaming
- Biotechnologies
- Augmented Reality/Virtual Reality
- Spatial Computing
- Cyber
- Edge Computing
- Internet of Things

## • Attributes

- What attributes are important to SOF in Great Power Competition?
- What attributes help SOF change the way we compete?
- Reduces risk to SOF personnel

**Discovering Disruptive Technologies for the SOCOM Enterprise**

# S&T Futures Process

## ? Results

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- 1 **MATERIEL APPROACHES**
    - Leap Ahead
    - Asymmetric
    - Divergent
  - 2 **NON-MATERIEL**
    - Policy, Authority & Doctrine
    - Assess & Describe Impact/Opportunity
  - 3 **NEW PROBLEM IDENTIFICATION**
    - Opportunity
    - Threat
    - Follow-on Analysis

## ? Rapidly Changing Technology

## ? Changing Environments

## ? Varying Mission Objective (Measures of Success)

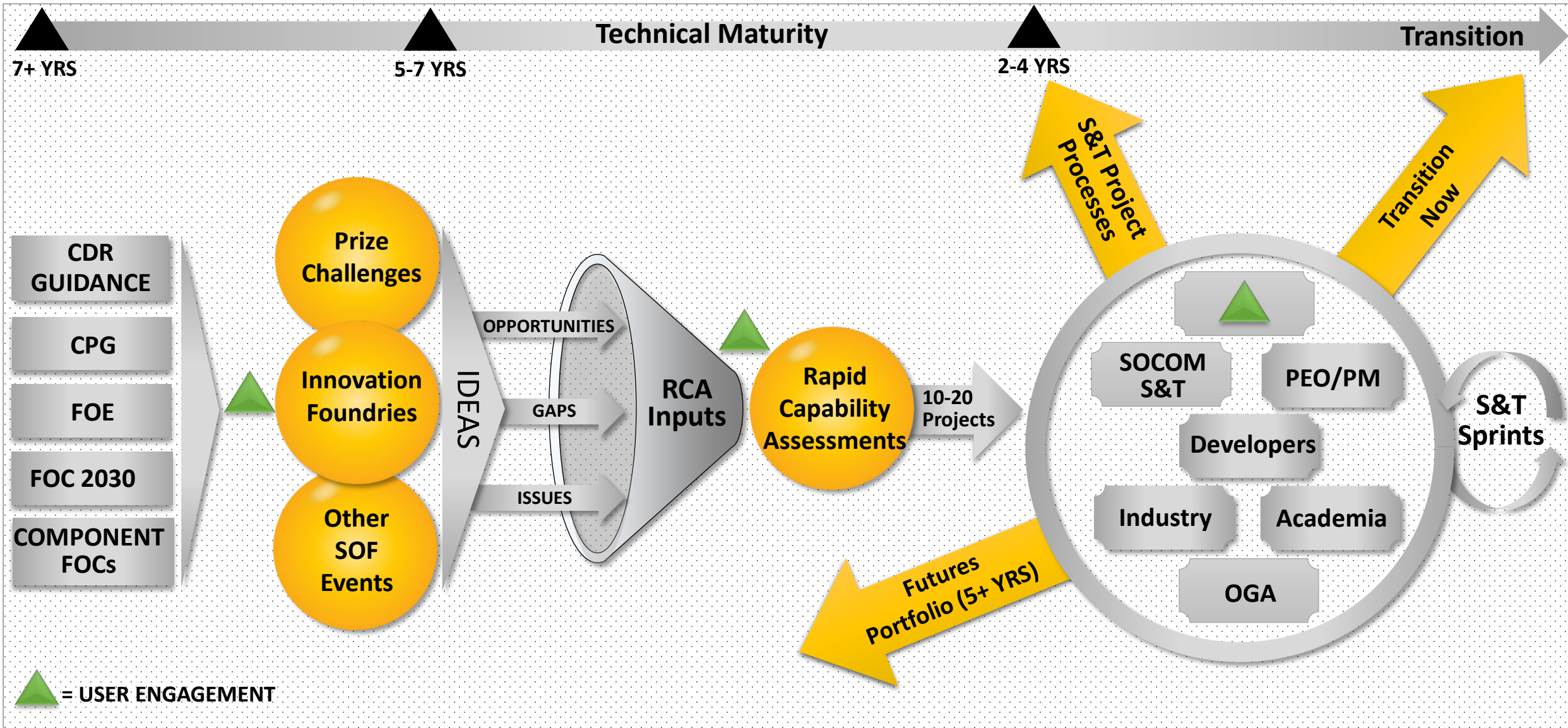
## ? Changing Strategic Conditions

# Futures Team Charter

- **SOF-AT&L's place for acceleration of Force Design (5-15 years out)**
- **High-risk, disruptive, asymmetric**
- **Embrace non-traditional partners**
- **Pioneers in acquisition (OTAs, SBIRs, Prize Challenges)**
- **Small Investments, Big Return on Investment**
- **Experiment-based design—highly iterative, but focused**

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

# Transformation to Transition





# 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**

# Joint Acquisition Task Force (HEO)



## Hyper Enabled Operator Definition

An operator whose decision making is assisted by data analytics at the edge, resulting in cognitive overmatch and enabling decision making in complex environments, and cross domain competition.

## Current Focus

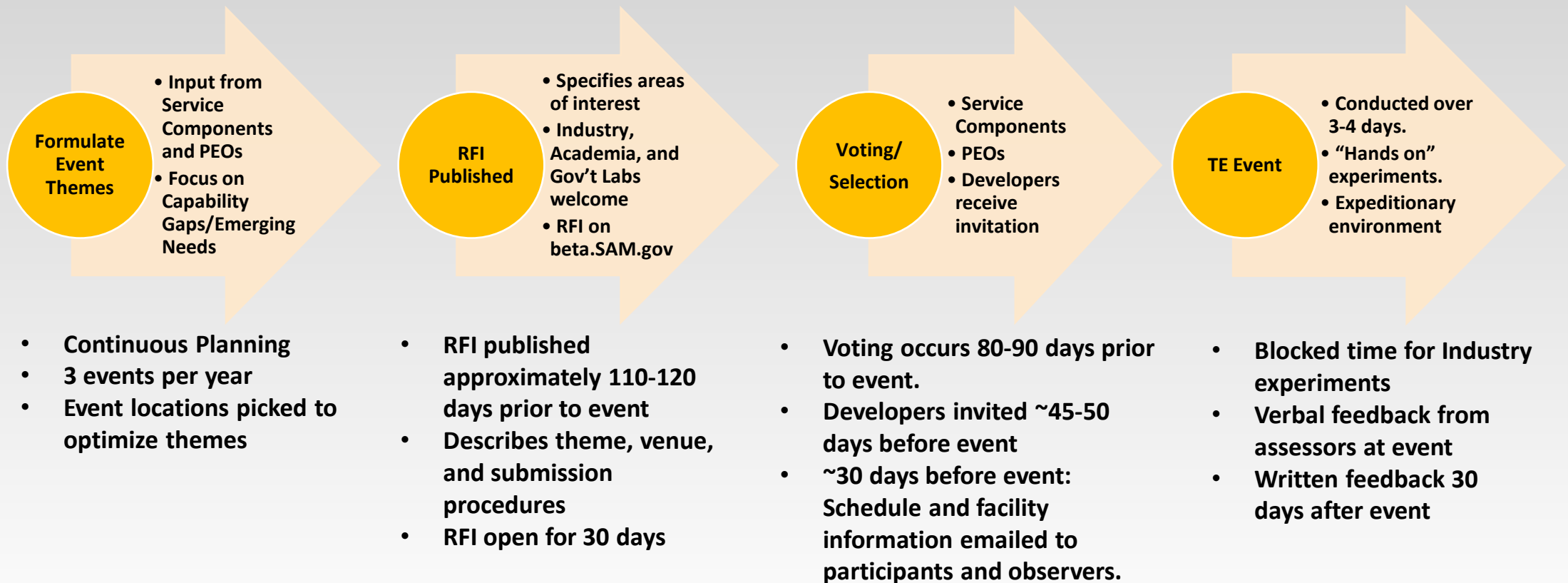
Enabling partner nation operations competing below the level of armed conflict: foreign internal defense and unconventional warfare. Using COTS/GOTS sensors and communication devices, on an industry standard architecture to increase shared awareness of the battle space.

## Joint Acquisition Task Force (Lines of Effort)


- Operator Worn Compute Kit (OWK). Sensors/edge compute processing
- Application development
- Software defined, mission and hardware agnostic architecture
- Human Machine Interface (presentation layer)
- Information Realization “...synthesis of products that are currently analyzed at higher echelons into products that can be digested at the tactical edge”
- Beyond Line of Sight Communications

# Technical Experimentation (TE) Purpose/Process

To help improve SOF warfighter capability and provide operational and programmatic insight to industry by bringing Technology Developers, Operational Users, and Program Offices together to assess developing technology.



# 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**





# QUESTIONS?

