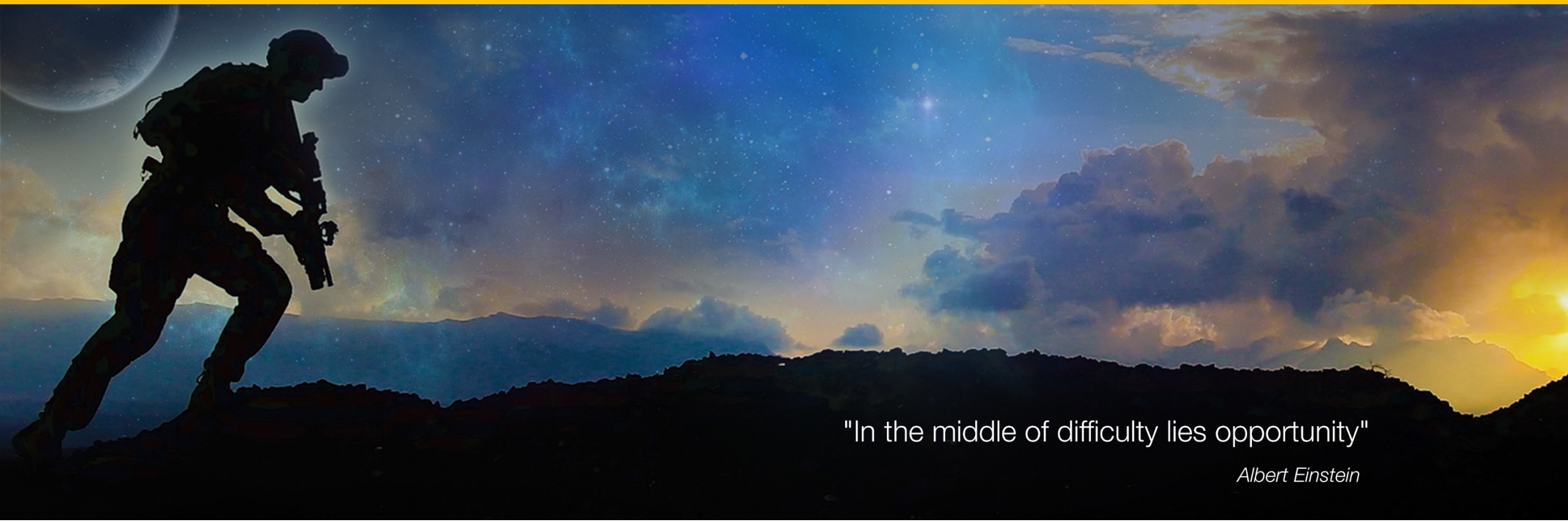


EXPANDING THE COMPETITIVE SPACE

SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Ms. Lisa Sanders, Director, Science & Technology

USSOCOM DISRUPTIVE TECHNOLOGIES

SOF AT&L

SOF AT&L-ST Vision

Innovate for Future Threats

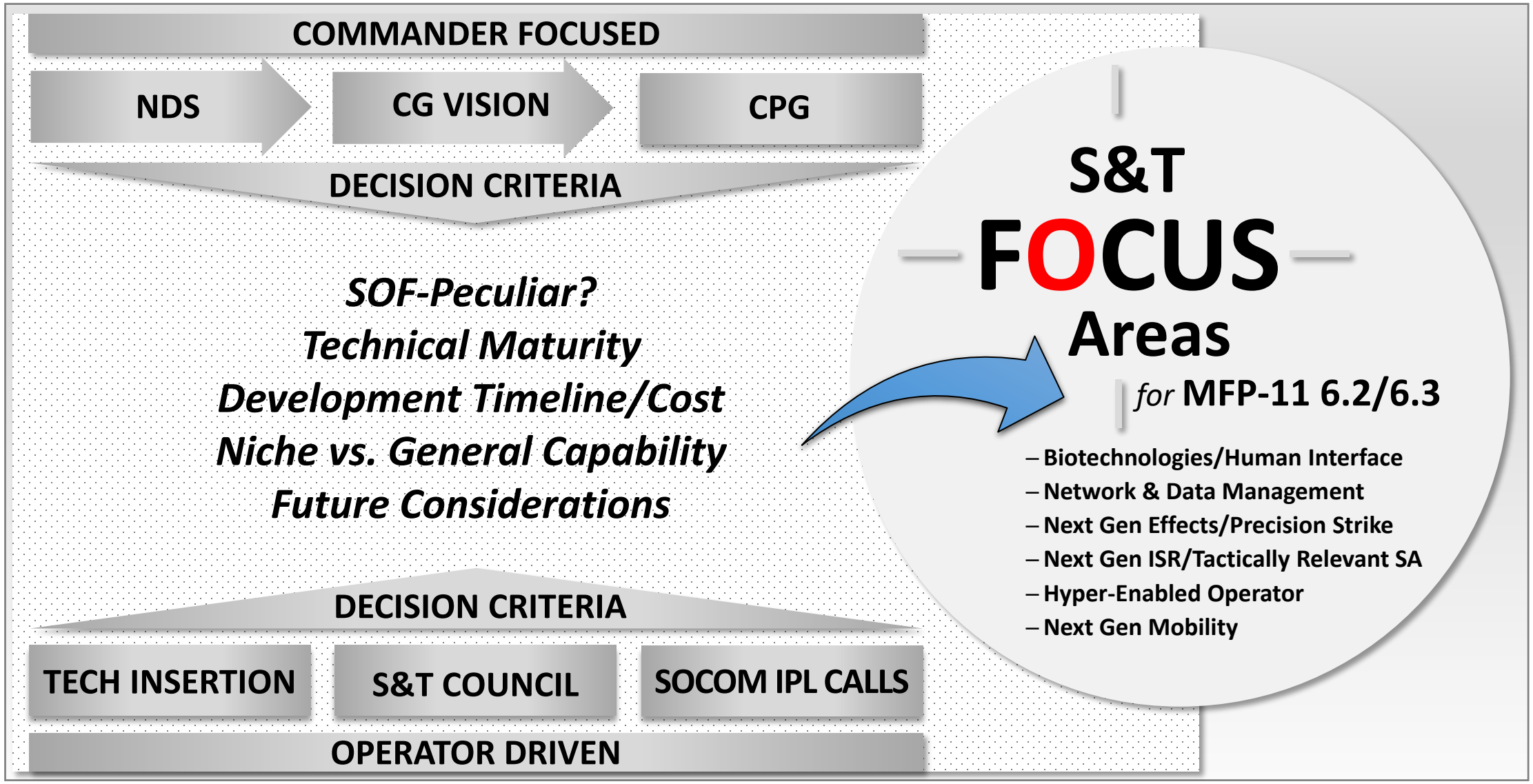
Relentlessly Discover, Develop, Adapt and Employ Next Generation Technologies that Provide SOF an Overwhelming Competitive Advantage

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



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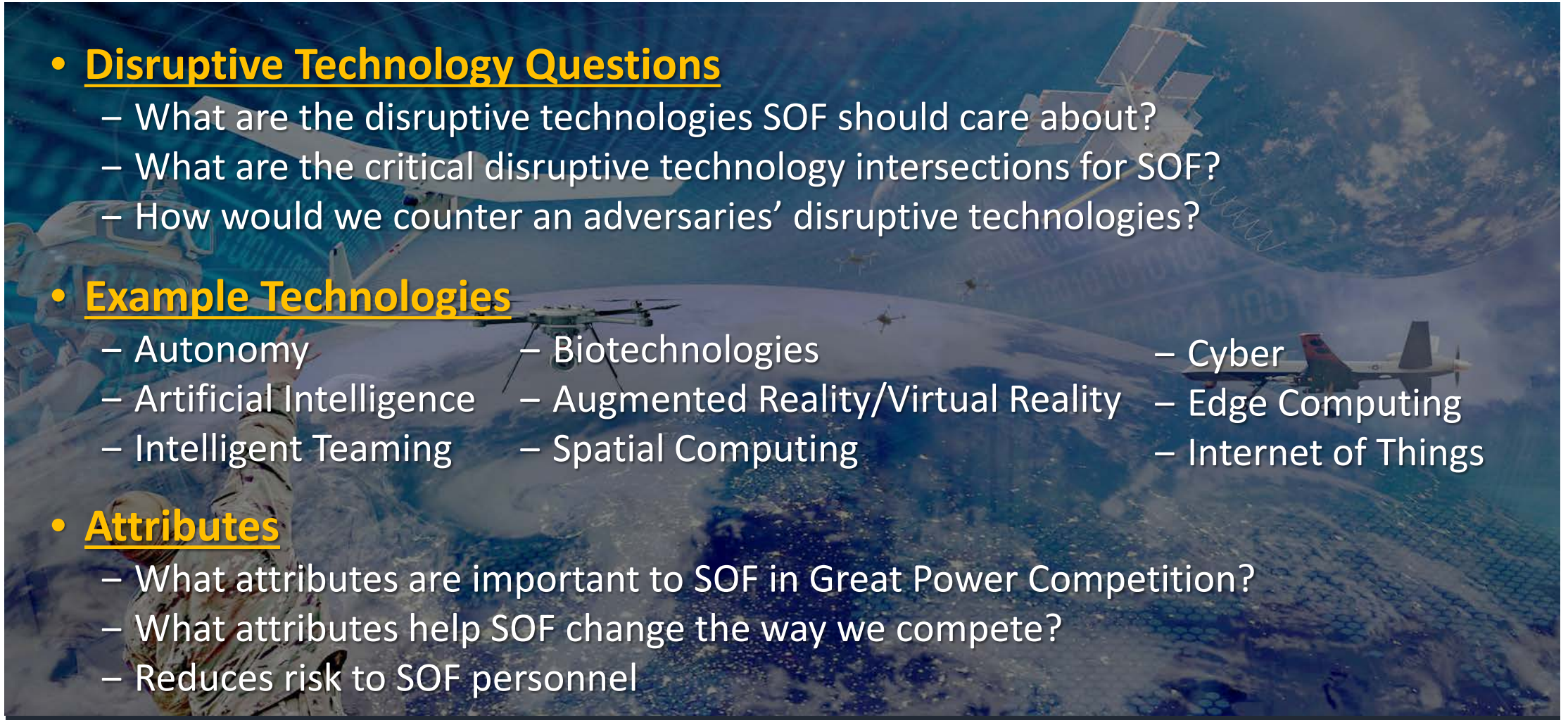
Strategic Engagement



- **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

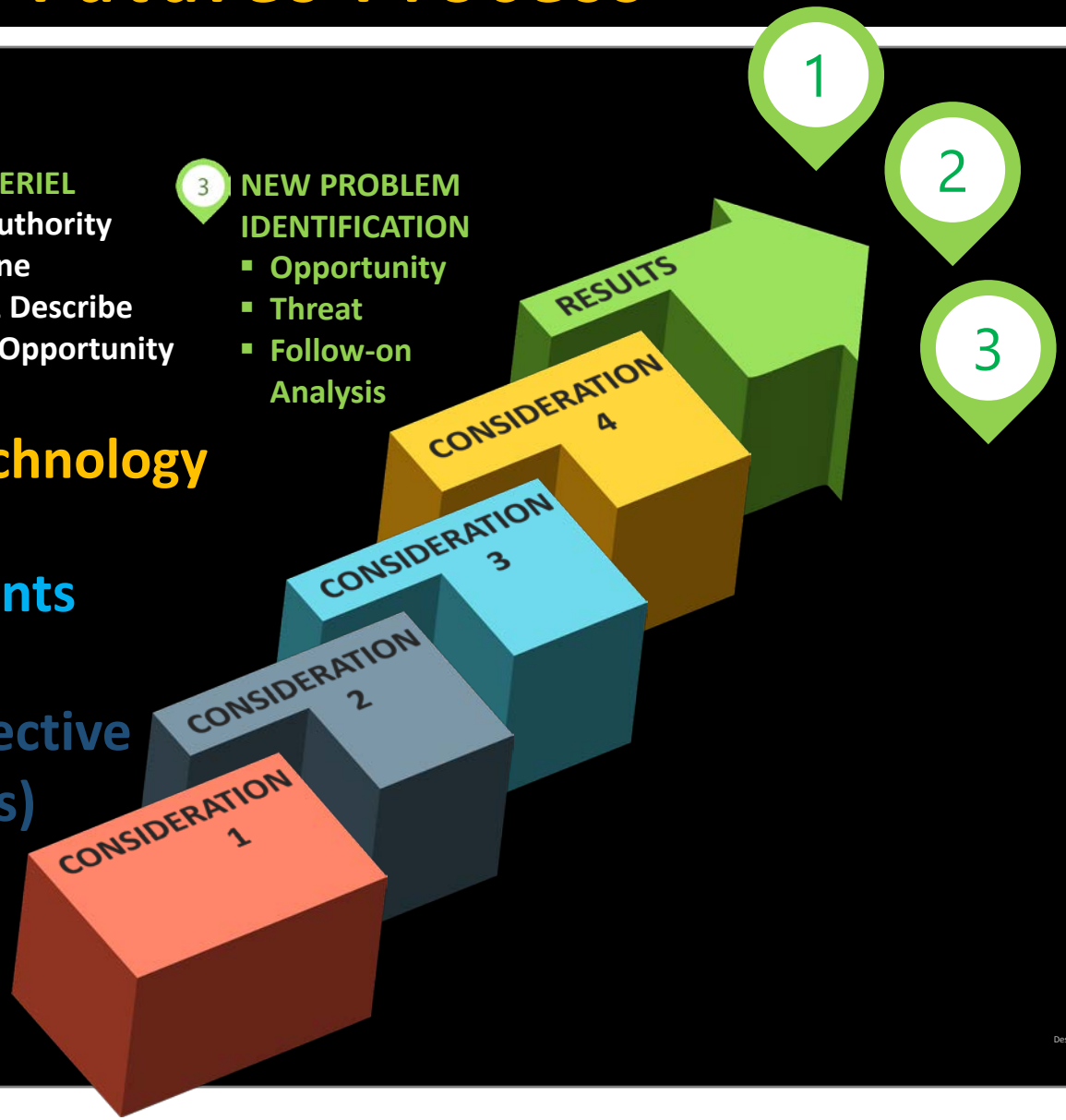
1. MATERIEL APPROACHES
   - Leap Ahead
   - Asymmetric
   - Divergent
2. NON-MATERIEL
   - Policy, Authority & Doctrine
   - Assess & Describe Impact/Opportunity
3. NEW PROBLEM IDENTIFICATION
   - Opportunity
   - Threat
   - Follow-on Analysis

Rapidly Changing Technology

Changing Environments

Varying Mission Objective (Measures of Success)

Changing Strategic Conditions

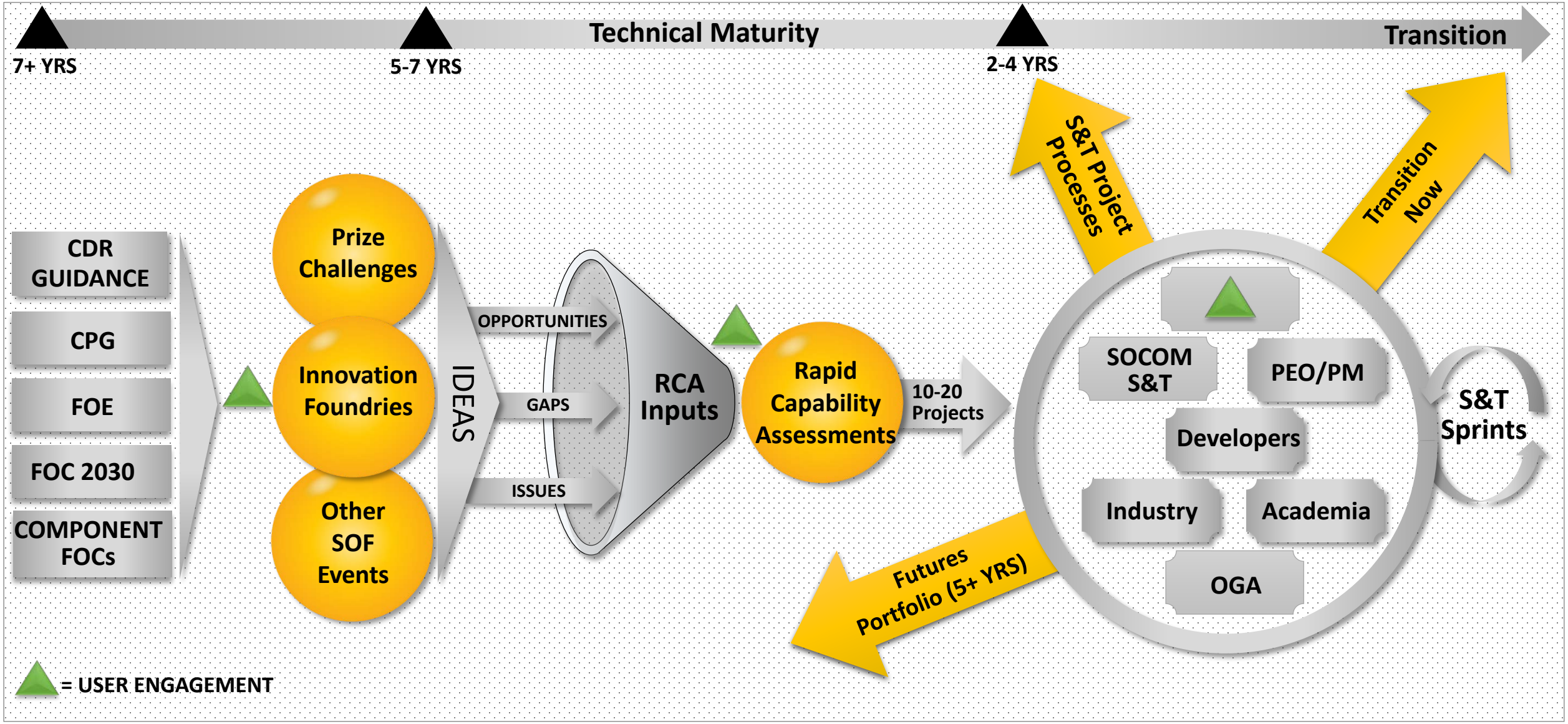


Futures Team Charter

- 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.

Formulate Event Themes

- Input from Service Components and PEOs
- Focus on Capability Gaps/Emerging Needs

- Continuous Planning
- 3 events per year
- Event locations picked to optimize themes

RFI Published

- Specifies areas of interest
- Industry, Academia, and Gov't Labs welcome
- RFI on beta.SAM.gov

- RFI published approximately 110-120 days prior to event
- Describes theme, venue, and submission procedures
- RFI open for 30 days

Voting/ Selection

- Service Components
- PEOs
- Developers receive invitation

- Voting occurs 80-90 days prior to event.
- Developers invited ~45-50 days before event
- ~30 days before event: Schedule and facility information emailed to participants and observers.

TE Event

- Conducted over 3-4 days.
- "Hands on" experiments.
- Expeditionary environment

- Blocked time for Industry experiments
- Verbal feedback from assessors at event
- Written feedback 30 days after event

Technical Experimentation (TE)

- **TE 20-3, 13-17 July 2020 at Avon Park Air Force Range, Avon Park, FL**
  - 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
- **LinkedIn© Group: SOCOM Technical Experimentation**