U.S. ARMY CCDC - ATLANTIC

Basic and Applied Research Collaboration Overview

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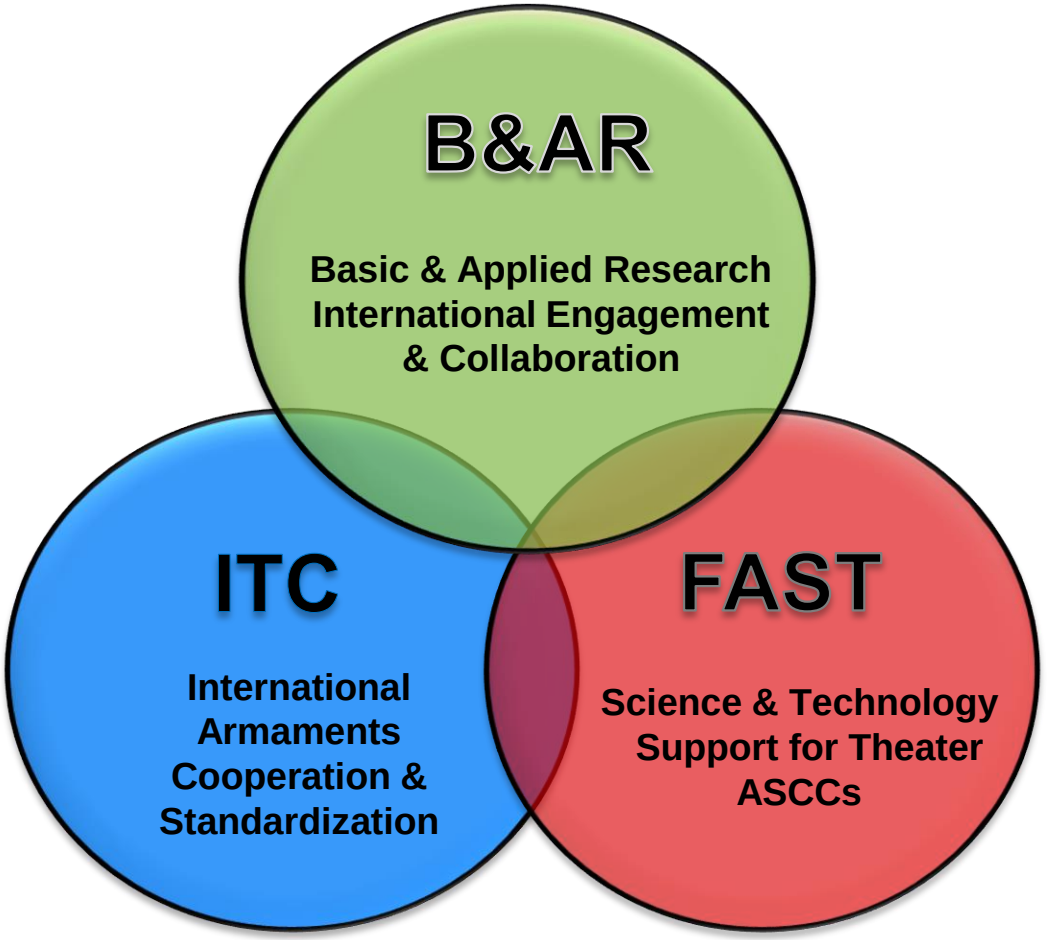
CCDC Atlantic

27 FEB 2019

CCDC-ATLANTIC

- CCDC is the United States Army's premier organization for science and technology
- CCDC's forward elements extend the Army's Science and Technology ecosystem globally to support the Army's global mission, help build partner capacity, and ensure interoperability
- CCDC-Atlantic facilitates partnerships and engagements with industry, academia, DoD labs, and our Allies

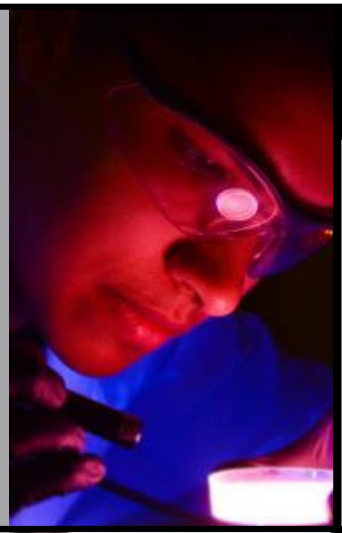


Innovation will be the key to our success!

TECHNICAL CAPABILITIES

AVIATION & MISSILE CENTER
Redstone Arsenal, AL

- Airframe Structures
- Rotors & Rotor Systems
- Sensors and Seekers
- Guidance, Navigation, and Control
- Propulsion
- Counter-UAS
- Visualization
- Anti-Access/ Area Denial
- Missile Defense



ARMY RESEARCH LABORATORY
Adelphi, MD

- Extramural Basic Research
- Computational Sciences
- Materials Research
- Sciences-for-Maneuver
- Information Sciences
- Sciences for Lethality and Protection
- Human Sciences
- Assessment & Analysis
- Advanced Computing & Big Data
- Agile Manufacturing
- Synthetic Biology

ARMAMENTS CENTER
Picatinny Arsenal, NJ

- Munitions Systems & Technologies
- Integrated Weapon Systems
- Energetics, Warheads & Manufacturing
- Guidance, Navigation & Control
- Fuze & Precision Armament Technology
- Cross Domain Fires

C5ISR CENTER
Aberdeen Proving Ground, MD

- Mission Command
- Tactical and Deployed Power
- Tactical Cyberspace Operations
- Electronic Warfare
- Intelligence, Surveillance, Reconnaissance and Targeting
- Network
- Prioritize Position Navigation and Timing (PNT)

TECHNICAL CAPABILITIES

CHEMICAL BIOLOGICAL CENTER
Aberdeen Proving Ground, MD

- Chemistry and Biological Sciences
- CB Agent Handling and Surety
- CBRNE Materiel Acquisition
- CBRNE Analysis and Testing
- CBRNE Munitions and Field Operations

SOLDIER CENTER
Natick, MA

- Advanced/ Multifunctional Materials
- Biomechanics
- Cognitive & Behavioral Sciences
- Food Science
- Geographic/ Precision Guided Systems
- Soldier Performance Optimization
- Biological Technology
- Neuro-cognition

DATA & ANALYSIS CENTER
Aberdeen Proving Ground, MD

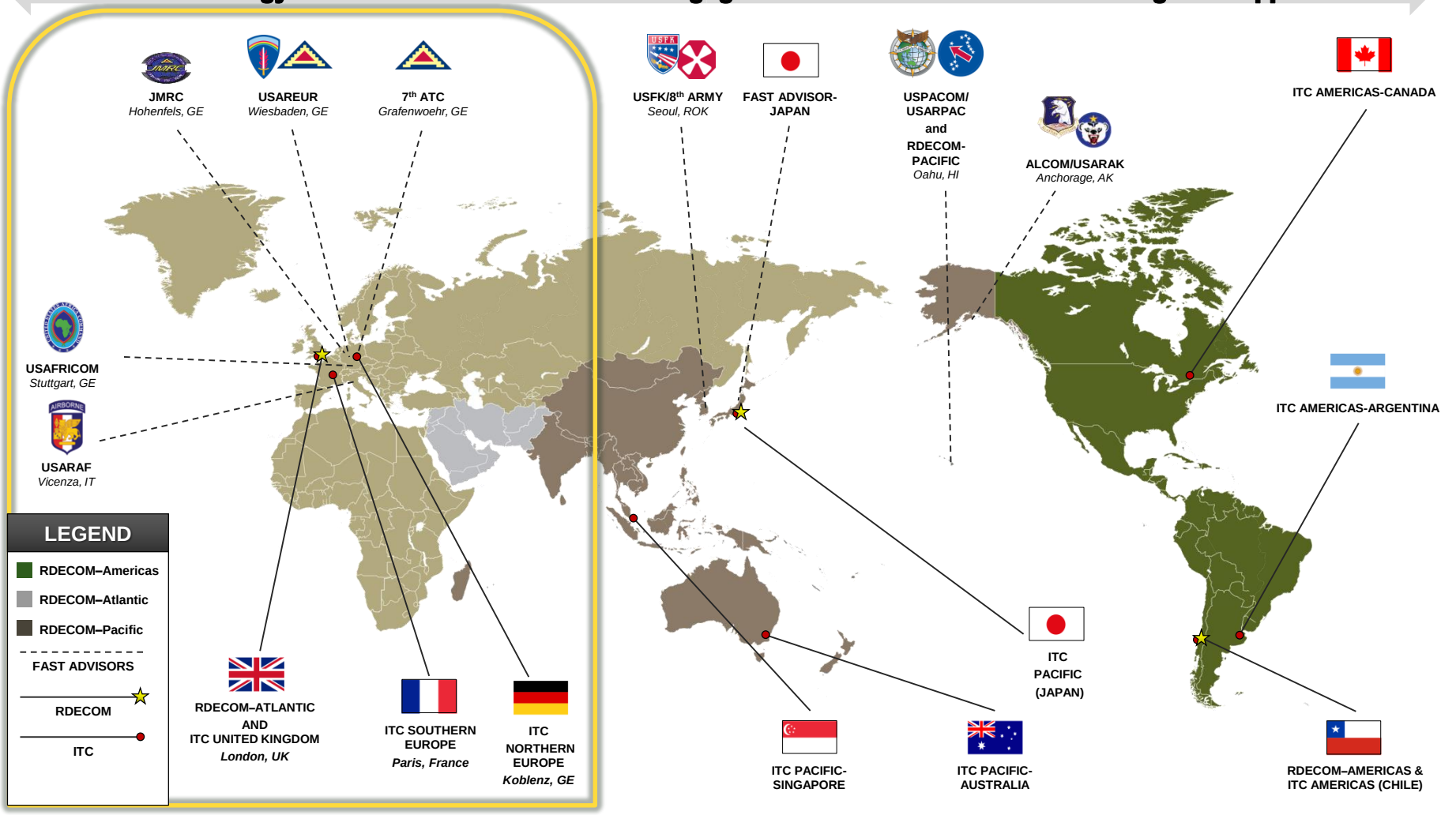
- Certified Item Level Performance Data
- Models, Simulations, & Tools
- Life-Cycle Systems Analysis
- Vulnerability / Lethality Technical Analysis
- Soldier-Centered Performance Design Analysis

GROUND VEHICLES SYSTEMS CENTER
Warren, MI

- Ground Vehicle Survivability
- Autonomy-Enabled Systems
- Vehicle Electronic Architecture
- Ground System Software
- Ground Vehicle Power & Mobility
- Robotics/Autonomous Systems
- Combat Vehicles
- Advanced Protection Systems

CCDC GLOBAL OPERATIONS

Technology Search | **Engagement** | **Warfighter Support**



Driving innovation around the world with our allies and partners

BASIC & APPLIED RESEARCH

Awareness ——— Engagement ——— Relationships

- Conduct outreach on behalf of the Army S&T enterprise
- Promote awareness of state-of-the-art and newly emerging S&T across the global spectrum
- Identify priority areas and mechanisms for research exchange and collaboration
- Foster relationships and invest to develop opportunities for cooperation

US Army Corps of Engineers.

BASIC & APPLIED RESEARCH

Goals:

- Discover innovative basic research
- Identify collaborative research opportunities with the world's best scientists
- Build and maintain relationships with the international scientific community

Initiatives:

- Outreach to Academia
  - University Visits
  - Participate in Academic and Scientific Professional Symposia
- Grants to support innovative research, scientific conferences, and collaborative research with U.S. Labs and Research Centers

TECHNICAL AREAS OF INTEREST

- Chemistry
- Physics
- Life Sciences
- Network Science
- Environmental Sciences
- Human Sciences
- Electronics
- Materials Sciences (structural, electronic, photonic)
- Mechanical Sciences
- Mathematics
- Computing Science
- Energy and Power Technologies
- Aeronautics
- Robotics and Autonomous Systems
- Sensors
- Nanotechnology
- Lasers and Electro-Optics
- Energetic Materials
- Information Technology
- Quantum Sciences
- Synthetic Biology

BROAD AGENCY ANNOUNCEMENTS

http://www.arl.army.mil/www/default.cfm?page=8

- W911NF-17-S-0002 ARO Broad Agency Announcement (BAA) for Basic and Applied Scientific Research for Fiscal Years 2017 through 2022 http://www.arl.army.mil/www/pages/8/W911NF-17-S-0002.pdf
  - High risk, revolutionary basic research

- W911NF-17-S-0003 ARL Broad Agency Announcement (BAA) for Basic and Applied Scientific Research for Fiscal Years 2017 through 2022 http://www.arl.army.mil/www/pages/8/W911NF-17-S-0003.pdf
  - Basic and Applied Army relevant research

COLLABORATION OPPORTUNITIES

- **Grants**
  - Seed projects exploring innovative basic research concepts
  - Focused research projects addressing specific science and technology challenges
  - Collaborative research projects with U.S. Army scientists and engineers

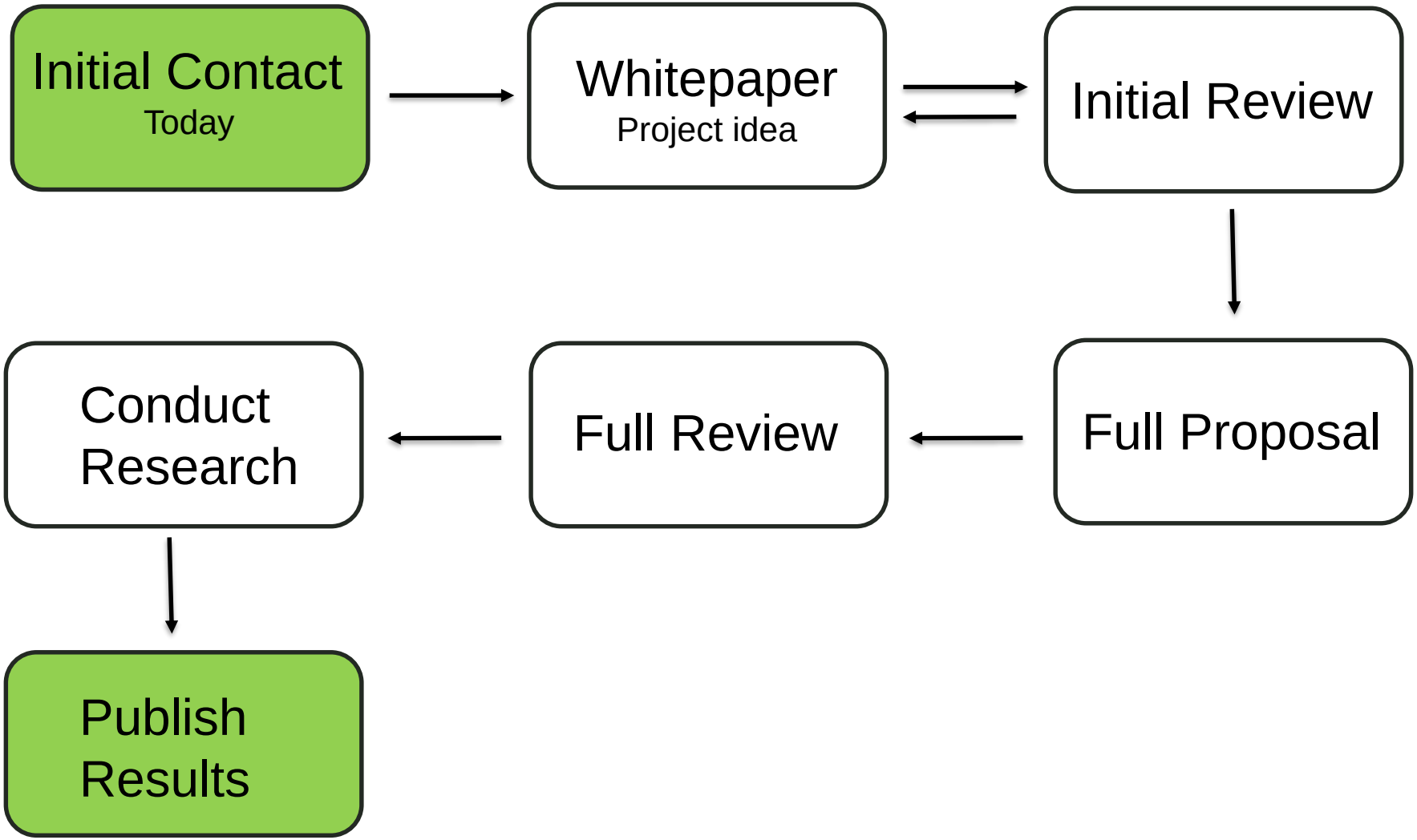
$25K for 6 months up to $350K over 3 years

COLLABORATION OPPORTUNITIES

- **Conference/workshop support**
  - Unique, focused, technical workshops and conferences
  - $3-5K to help support participant travel and conference costs (budget cannot include costs for banquets, refreshments, social functions, entertainment, etc)

- **Visiting Scientist/Subject Matter Expert travel**
  - International Subject Matter Expert travel to U.S. Army Labs/Centers
  - $1-3K for travel to U.S. Army Labs/Centers for collaborative research discussions and planning

PROPOSAL PROCESS



Timeline depends on multiple factors

WHITEPAPER

Whitepapers should present the effort in sufficient detail to allow evaluation of the concept's scientific merit and its potential contributions of the effort to the Army mission

Background
Briefly describe the research topic, recent scientific advancements, and knowledge gaps. Describe how your research idea will close knowledge gaps.

Short Work Statement
Provide a concise description of what you intend to do if the project is funded including the research aims and a general summary of the intended approach. A detailed methodology is not required.

Research Vision
Include the nature and extent of the anticipated results and, if known, the manner in which the work will contribute to the accomplishment of the Army's mission and how this contribution would be demonstrated.

Estimated cost by year

INTELLECTUAL PROPERTY

- **Who retains the Intellectual Property rights?**
  - You, the researcher, and/or University
  - The proposal should identify any sensitive or intellectual property restrictions
- **What does the US Government get from my research?**
  - Government Purpose Rights (non-exclusive/non-commercial use of the IP)
  - International research collaboration
  - New relationships with top researchers in key areas to support U.S. Government priorities and strategies
- **Can the Results be Published?**
  - CCDC-Atlantic encourages you to publish your results in an open, peer-reviewed journal, magazine, or other publication
  - The U.S. Government can collaborate throughout the research activities to co-author publications with you

CONTACT US

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