MISSION
To ensure decisive capabilities for unified land operations to empower the Army, the joint warfighter, and our Nation.

VISION
The preeminent world leader in research, development, and engineering.
Delivering capabilities for the Army, joint warfighters, and our Nation
Munitions Engineering & Technology Center:
Provides life-cycle engineering research, development, production, field support and demilitarization for all integrated munitions systems.

- Propellants; explosives; pyrotechnics; warheads; fuzes; insensitive munitions; environmental technologies and explosive ordnance disposal; aero ballistics and telemetry

Weapons and Software Engineering Center:
Generates technologies and executes life-cycle research, design development, production engineering and sustainment of programs related to weapons and weapon systems.

- Small, medium and large caliber weapons design, experimentation, evaluation, manufacturing, and integration; digitization; and embedded system software; directed energy; technical and tactical fire control; homeland defense

Enterprise & Systems Integration Center:
Serves as ARDEC Executive Agent to ensure cost, schedule, performance adherence, and sustainability through the integration of technical and business competencies.

- System engineering; quality engineering; logistics engineering; project management; business development; S&T; financial & knowledge managements
MULTIPLE WAYS TO DO BUSINESS

- CRADA
- EPA
- PIA
- SBIR
- TSA
- IR&D
- ESA
- FAR/DFARS
- Grants
- OTA
- PLA
Congested and Restricted Environ; Potential for Overmatch; Spread of Advanced Cyberspace and Counterspace Abilities; Increased Speed of Human Interactions; Proliferation of Weapons of Mass Destruction

Identification, coordination, organization of individual “Source Documents” needs/gaps/priorities into one list

Enduring, first order problems, the solution to which will improve current and future force combat effectiveness

Framework, governance and strategic communications strategy to prioritize research and development

Competitive strategy to achieve decisive, asymmetric operational advantage, gain technological overmatch, and eliminate parity
Non-kinetic effects that enable multi-domain defeat of threats for indirect fires
Reduced cost tactical grade IMUs
Reduced cost, high reliability control actuation technologies that enable high g maneuver
Imagers that can operate in all conditions (obscured, clouds, weather)
Higher density power sources that enable extended time of flight and survive long term storage
Reliable, gun hardened, fuzing components w/ focus on air burst & proximity
Advanced warheads against personnel and light vehicles
Novel energetic and non-energetic materials
ARDEC SBIR SELECTION PROCESS

PMs are represented and involved in SBIR Topic Selection Process

Topic Generation and Solicitation

All proposed SBIR topics are linked to the ARDEC Armament S&T Strategic Plan and the ARDEC Stakeholder Needs

- Topics are solicited for and submitted in a centralized data system that allows for standardized, searchable data

- Topics are scored against set criteria and ranked utilizing statistical methods which remove bias between topics and between scorers

- Representatives from PMs actively participate in SBIR topic selection to ensure maximum transparency, communication and buy-in
### Technology

<table>
<thead>
<tr>
<th>Warfighting Functions</th>
<th>Movement and Maneuver</th>
<th>Maneuver Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Benefit</strong></td>
<td>Injection molding and mold design for composite munition canisters for tank rounds.</td>
<td>Army sniper rifle targeting scopes and for use in detecting camouflaged objects.</td>
</tr>
<tr>
<td><strong>Transition(s)</strong></td>
<td>FY16 Transitioned for Government and Commercial use, i.e., for PING Inc</td>
<td>FY16 Transitioned to DoD proponents</td>
</tr>
</tbody>
</table>

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Partnering is a Strategic ARDEC Initiative that is embedded in the ARDEC Culture. ARDEC is continuously expanding its network of Strategic Partnerships with Industry, Academia and Other Government Organizations—both Domestically and Internationally.

DOD transfers technology to the Industrial Base, enabling and speeding transition to the Warfighter.
• Promoting strong partnership with industry/academia
• Other Transaction Agreements (OTA)
• Includes Traditional and non-traditional industries and academia

Established 2000

400+ members in NAC
Our Facilities are a National Asset Available to Private Sector at Low Cost

- Test results are proprietary to the customer; not released outside the government without permission of the customer
- Authority in 10USC2539b
COYOTE UNATTENDED GROUND SENSOR SYSTEM

Technology:
• Components developed under SBIR(s)
• System designed under CRADA between Innovative Wireless Technologies and the Acoustics and Networked Sensors group at Picatinny Arsenal
• Multi-modal Unattended Ground Sensor System integrated into enterprise-level mesh network backbone - Ideal for difficult communication environments
• Sensing modalities include seismic, acoustic, PIR, LWIR imager
• Highly scalable, persistent, cost effective deployments with 2+year operating life on 2 BA-5390 batteries
• Ideal for Infrastructure/Border monitoring; DHS, Border Security

Payoff:
• Allows for long duration surveillance of remote locations and for perimeter security with minimal maintenance
• System is completely buried except for flexible communications antenna, microphone windscreen, and imager lens, allowing for ease of concealment
• Low cost allows for denser sensor emplacement compared to competitive systems

Program Status:
• Commercial product

Development Efforts:
• Addition of Aircraft and Boat classifiers
• Improvements to Human vs. Animal discrimination to further reduce false alarms
• Implementation of SATCOM long haul option
TEAMING WITH ARDEC

- **Small Business Innovative Research (SBIR)**
  POC: Ms. Sheila Speroni, sheila.c.speroni.civ@mail.mil

- **CRADAs/Patent Licenses/Testing Services/Engineering Services/International/IR&D**
  POC: Tim Ryan, timothy.s.ryan.civ@mail.mil

- **DOTC**
  POC: Don Geiss, donald.a.geiss.civ@mail.mil

…..Continued Dialog to Leverage Collaboration Opportunities
QUESTIONS?