



ARMY



SBIR

SMALL BUSINESS INNOVATION RESEARCH

MISSION

The Army SBIR program is designed to provide small, high-tech businesses the opportunity to propose innovative research and development solutions in response to critical Army needs.

VISION

To be the Army's premier source of innovative technology solutions, providing direct access to America's high-tech small business research and development community, enabling our Soldiers deployed around the world.

**NDIA Small Business Conference
November 17-18, 2010**

**Michael John Smith
Program Manager
HQ RDECOM
Aberdeen Proving Ground, MD**

What is SBIR?

A Congressionally mandated program...



Across federal govt (DoD, DoE, DHS, DoT, Agriculture, etc...)

To increase small business participation in federally-funded R&D

And transition small business:

- For Government Programs
- Increase Nation's Industrial Base

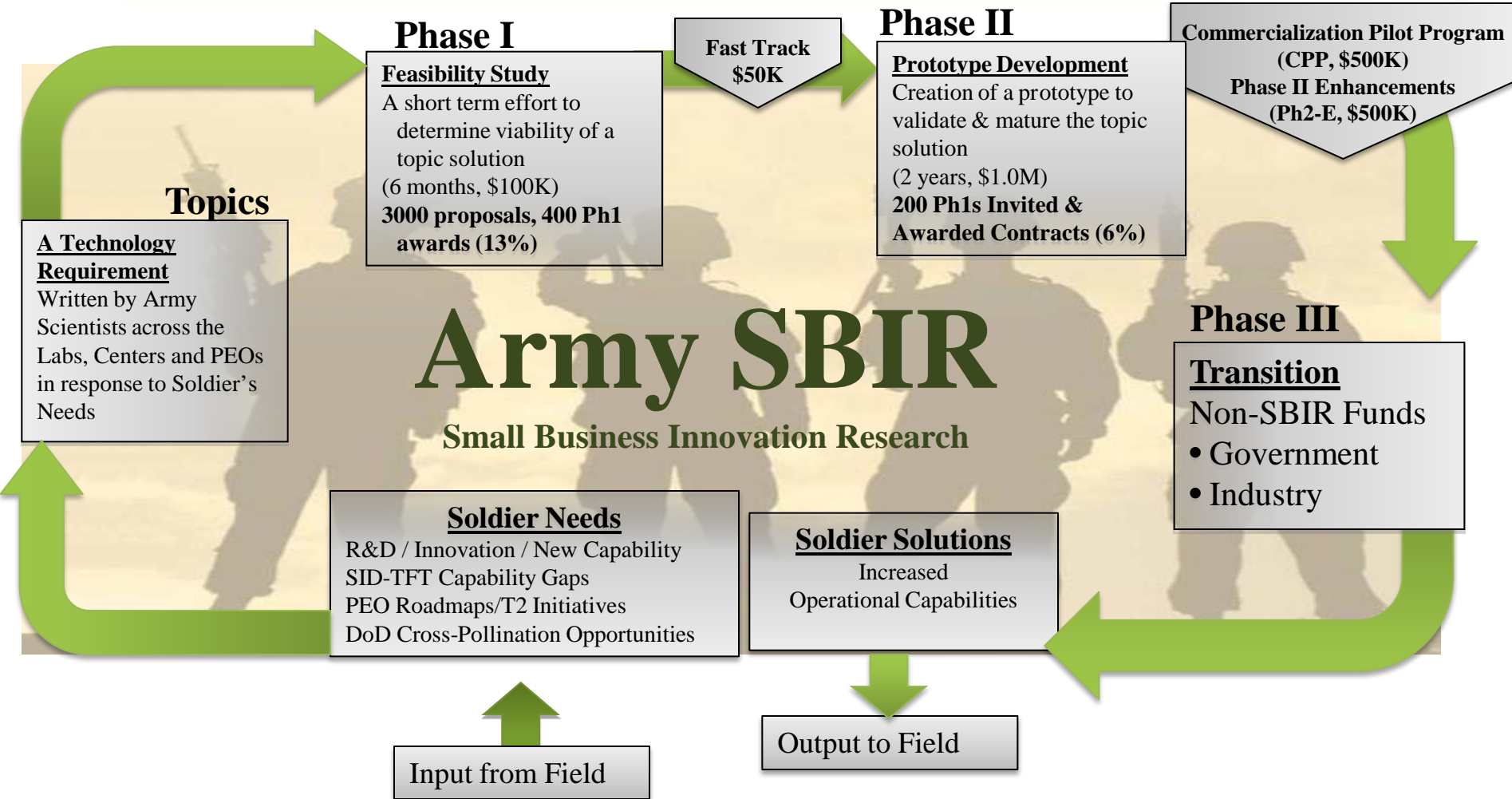
2.5% of Army \$9.9B Extramural RDT&E (\$244M for FY10)

Army wide:



AMC, Research Development and Engineering Command (RDECOM)
Army Test and Evaluation Command (ATEC)
CoE, Engineer Research and Development Center (ERDC)
MEDCOM, Medical Research and Materiel Command (MRMC)
Space & Missile Defense Command (SMDC)
DA G1, Army Research Institute (ARI)
Army Program Executive Offices (PEOs)

- **Transition** is program maturation from SBIR investment to Non-SBIR government and/or commercial investment



Program History

	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10
Budget (\$M)	\$165	\$228	\$233	\$243	\$243	\$270	\$265	\$244
# Topics	243	258	246	238	216	213	204	176
# Phase I Proposals Received	4,169	3,500	4,503	3,794	3,142	3,110	3,449	2,679*
# Phase I Awards	352	356	371	321	361	409	427	64*
# Phase II Awards	222	237	259	218	185	255	204	81*

* FY10 Source Selection is ongoing; estimates only

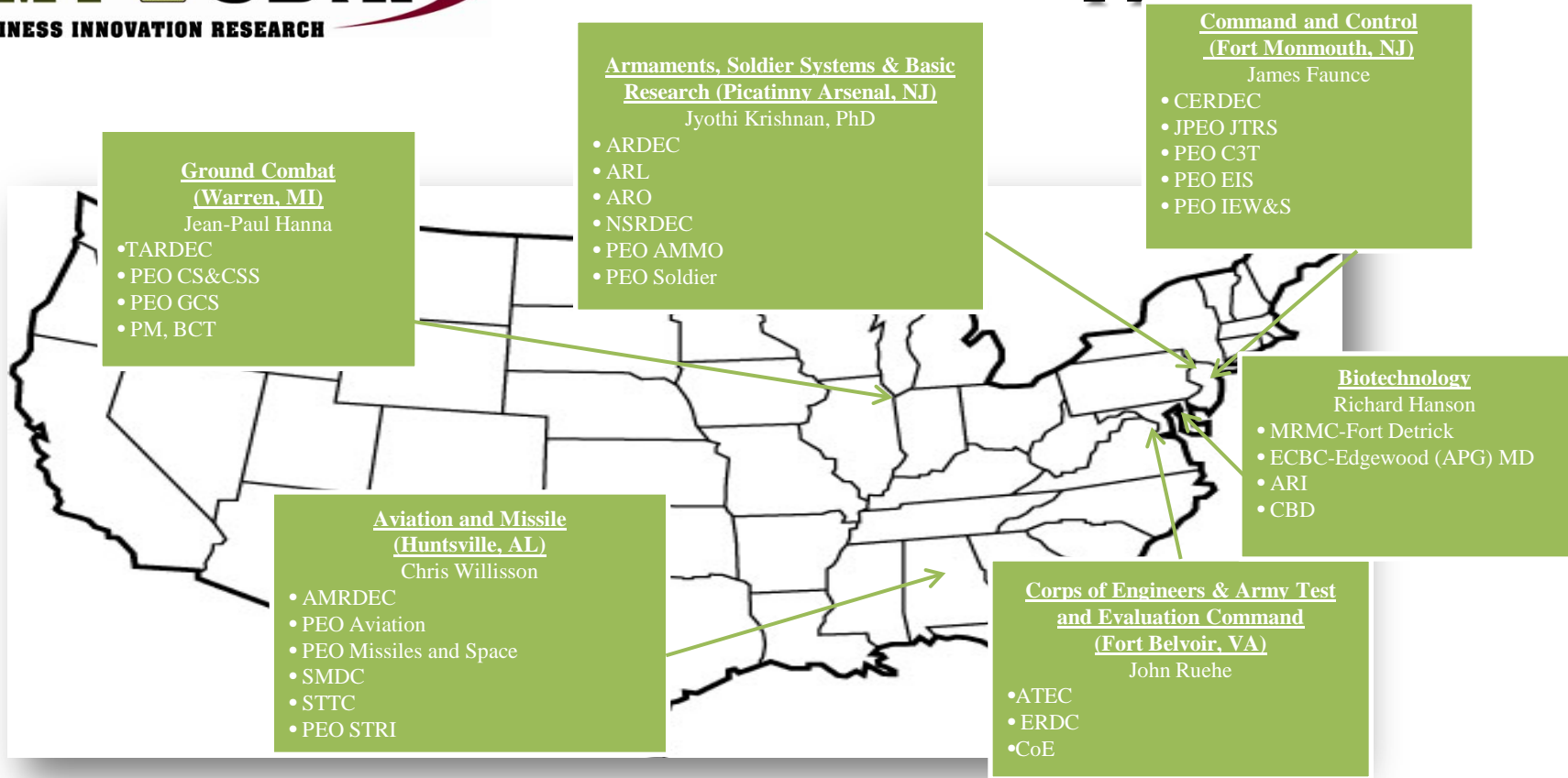
	Fast Track	Phase II Enhancement	Commercialization
What	Expedited Phase II approval based on customer provided co-funds	Additional SBIR funding beyond phase II for RDT&E	Additional SBIR funding beyond phase II for Business Planning
Why	Opportunity to take advantage of Market (M) and Timing (T)	Increase Technical Readiness Level (TRL) and/or Manufacturing Readiness Level (MRL)	Increase Business Readiness Level (BRL)
How	Small Business Initiated	Government Initiated	Small Business Initiated
FY09 Funding Allocated	\$10M per year	\$20M per year	\$20M per year
# of FY09 Projects	5	30	25-35

Initiatives Targeted to a Variety of Challenges

- **Fast Track**
 - Accelerate Promising Phase 1s w/bridging resources to Phase 2
- **Phase 2 – Enhancements**
 - SBIR PMO Technical Assistance Focus (Technology Maturation)
 - PMO Lead: Phacil TAAs
- **Commercialization Pilot Program (CPP)**
 - SBIR PMO Business Assistance Focus (Business Maturation)
 - PMO Lead: MILCOM Venture Partners

Phase II Enhancements

- Purpose: To accelerate the transition to a useable technology.
- Army SBIR Phase II Enhancement provides Phase II SBIR funding to firms that require additional funding during their open Phase II contract.
- How?
 - Enhancement candidates are initially identified by the project's COR.
 - The COR, in conjunction with the TAA and the organization's PC will compile the documentation needed for PM, SBIR to make a determination.
 - Generally SBIR Phase II Enhancement funding will not exceed \$500,000 per request and funding is subject to availability and a deliberate approval process.
 - Matching funds **strongly** encouraged.
- Activities funded:
 - Further R&D
 - Modifying or building prototypes; delivering multiple copies
 - Other activities that facilitate the transition of the project to Phase III



Technical Assistance Advocates (TAAs):

- Provide expert advice and analysis to Phase I companies
- Provide expert advice and analysis to government project managers regarding technology integration roadmaps
- Coordinate with government project managers, Phase II company and stakeholders to develop transition paths (Ph II Enhancements, Ph III Plans, etc.)

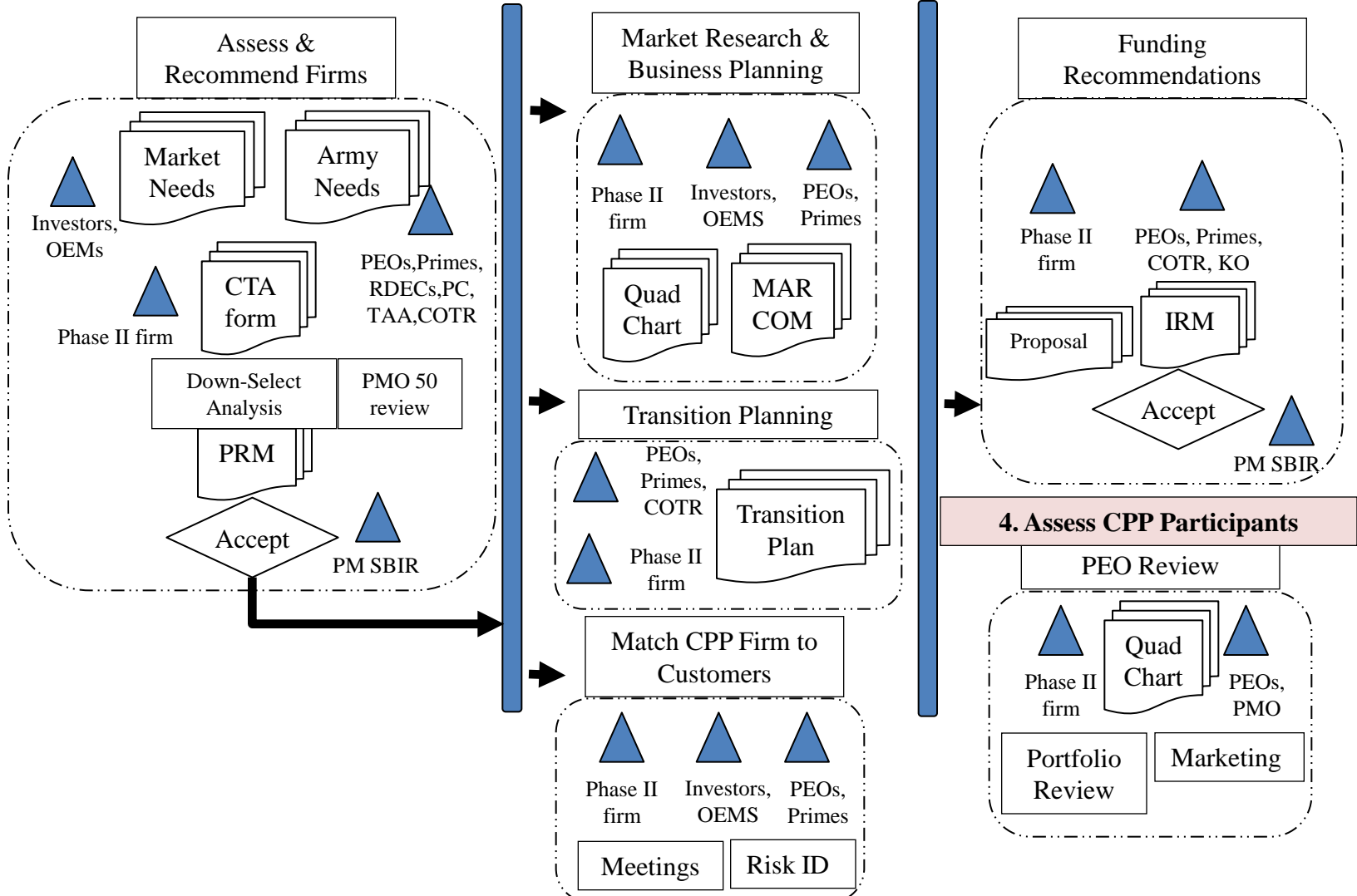
More information on TAAs and Transition Support may be found at the Army SBIR website.

Commercialization Pilot Program (CPP)

- Assess Phase II projects' commercial potential with program objectives; select 25 firms annually
 - Commercialization and Transition Assessment (CTA) Forms
- Assist selected CPP firms with commercialization
 - Marketing and business plan development
 - Facilitate customer collaboration
 - Integrate technology transition plans and business agreements
 - Identify 3rd party funding/investment opportunities

CPP Life Cycle

1. Identify CPP Participants (May) 400-600 Ph2 Companies Evaluated	2. Support CPP “Best of Breed” 25 Companies (October)	3. Fund CPP “Best of Breed” (April) \$15M Budget (avg. \$500K/firm)
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- 2007-2009
 - 75 companies selected (25/yr)
 - 30 companies received additional year of support
 - \$45M cum. CPP Investment
 - \$357M cum. 3rd-party sales and investment
- 18 Nov 2010
 - 25 Firms Selected/Notified

Challenges and Recommendations

- **Think Transition/Commercialization Early – Before Phase I**
 - Army SBIR funding is an investment in your future
 - We want you to succeed while you help Army to succeed
- **Determine Market for the technology, Army or Commercial**
 - Tune-In To Urgent Operational Needs
 - Engage Army R&D Centers For Ongoing Focus Areas and Expanding Technology Frontiers
 - PEO/Primes -- Roadmaps/Tech Transition (T2) Initiatives
 - Crucial advocacy/buy-in needed to drive SBIR product adoption
- **Intellectual Property / Data Rights**
- **Technology/Mfg/Business Readiness Levels (TRL/MRL/BRL)**
- **Timing**
 - Contract Awards (Phase I, II, and III)
 - Integrating with PEO/Prime acquisition schedule

Self-Contained Ration Heater

Provide heat on-the-go capabilities and ease of use. It will be used within the Meal, Ready to-Eat (MRE), and the Unitized Group Ration – Express (UGR-E) for improved heating capability and mitigate DOT, EPA restrictions on current heater.

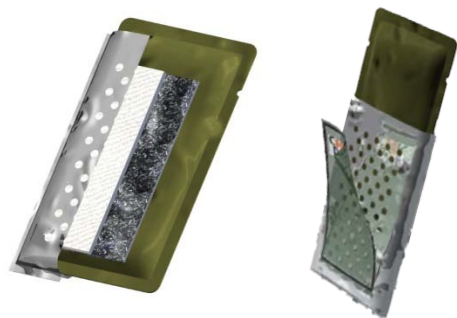
PEO SOLDIER

Natick Soldier Research and Development Center
 Rechargeable Battery Corporation

Transition:

- Customer buy in from PEO Soldier
- Investment funding from MANTECH

PHASE II ENHANCEMENT SUCCESS!



Small Multi-decade Communications & Electronic Warfare Antenna

A small multi-decade communications & electronic warfare antenna for high speed, high power electronics. Potential use in the military for communication, sensors and counter measures systems.

CERDEC I2WD
 First RF Corporation

Transition: \$201 M in sales to date

SBIR TRANSITION SUCCESS!



Durable, High Performance Personal Armor Plates

A durable, ceramic composite with low cost, low weight, and high performance that has been successfully commercialized as a ballistic protective insert for small arms protection.

U.S. Army Natick Soldier Research & Engineering Center
 M Cubed Technologies, Inc.

Transition: \$70M+ in sales to date.

CPP TRANSITION SUCCESS!



FIRST RF Corporation

- **Number of proposals submitted to date:**
 - 45 submissions. Nine (9) Phase 1s; Seven (7) selected for Phase II.
- **First Year participating in the SBIR Program:**
 - 2003
- **When was the \$201M contract awarded:**
 - May, 2005
- **Duration (Phase I to Commercialization) \$201M contract:**
 - Phase I: December, 2003
 - Phase III Contract awarded: May, 2005
 - Total of 2 years from Phase I to commercialization
- **Number of employees**
 - 150

M Cubed Technologies, Inc.

- **Number of proposals submitted to date:**
 - 20 Submissions: Two (2) Phase I /II selections
- **First Year participating in the SBIR Program:**
 - 2001
- **When was the \$70M contract awarded:**
 - February, 2007
- **Duration (Phase I to Commercialization) \$70M contract:**
 - Phase I: 2003
 - Phase II: 2006
 - Phase III Contract awarded: February, 2007
 - Total of 4 years from Phase I to commercialization
 - Note: Sales started 13 months into a shortened 18 month Phase II, which had been accelerated 6 months due to a national wartime need for soldier survivability
- **Additional Information:**
 - 2009 Army SBIR Achievement Award winner
 - Success story featured in the 2008 Army SBIR Commercialization brochure.
- **Number of employees**
 - 300

- IAC selected as baseline HUMs platform for all SOCOM rotary aircraft, ~\$50M in product sales from Phase II efforts – acquired by Honeywell
- Sound Innovation selected as the baseline noise suppression system for MACH program (Major tri-service aircraft helmet replacement program), now addressing Ground Soldier
- Irvine Sensors closed initial \$15M SOCOM order for thermal imaging clip-on, very large Army contract potential in FY11 with good SOCOM performance
- Chatten in LRIP, received initial orders from iRobot and Foster Miller
- Kutta secured > \$6M Phase III support, achieved approval of an air worthiness qualification spec, with POR and flight test status anticipated in 2010
- VEXTEC named “America’s Most Promising Company” by Forbes magazine, expanded from ground vehicles to rotorcraft components
- ESP C-PERL provides low cost, high volume hard-to-express proteins for Army R&D, generated > \$6M in CPP product sales, entered several new contracts including a \$1.2M DTRA nerve gas prophylaxis effort and Army AIDS mitigation program at WRAIR
- RE2 has generated > \$3M revenue and secured third party financing, recently closed 150 unit robotic arm sale through Joint Robotics Office
- ESP IWT secured a \$4.5M contract from L-3 for mining applications
- Rini is completing a cooling unit for dismounted soldiers for PM Air Warrior, awarded a \$1.7M ONR contract for regulating the temperature of divers
- Scalable Network has generated military and commercial software licensing and support revenues > \$4.5M
- Orbital is positioned for multiple munitions applications and has already secured \$1.4 for work on commercial wind turbines
- IPS is in final airworthiness transition qualification to replace Apache engine generators
- Advanced Circulatory Systems, ResQVent at MRMC
- Hontek Corp: 1998-2000 Erosion Protection at AMRDEC(A)

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COMMERCIALIZATION

AWARDS

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ARMY SMALL BUSINESS INNOVATION RESEARCH PROGRAM

OUR MISSION

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs allow small, high-tech U.S. businesses (less than 500 employees) and academia the opportunity to provide innovative research and development solutions in response to critical Army needs. By capturing the tremendous and agile talents of the U.S. small business community, the SBIR and STTR programs benefit the Department of Defense (DoD), the private sector, and our national economy. This portal provides all the information necessary to participate in these programs.

10.2 PHASE I SCHEDULE

10.2 Solicitation Pre-release:
21 April - 18 May 2010
10.2 Solicitation Opens: 19 May 2010
10.2 Solicitation Closes 23 June 2010

Upcoming Events

- > **Showcase of Aberdeen Proving Ground**
June 16-17, APG, MD
More Info...
- > **2010 Beyond Phase II Conference**
September 13-17, San Antonio, TX
More Info...
- > **2010 Defense Manufacturing Conference**
November 29-December 2, Las Vegas, NV
More Info...