Accelerating Innovation

New Programs to Support Communications between DoD and Industry

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Defense Technical Information Center

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Playing Field

- **DoD's Budget is constrained, we must ensure the most productive use of every dollar**
- **DoD annually invests about $12B in S&T and supports between $3B and $4B in IR&D, companies invest billions more**
- **Opportunities for networking and collaboration at conferences has diminished**
- **DoD must work more productively with our partners in the Industrial base**

Thesis

Increasing effective communications and improving situational awareness *will provide* better decision making, increased opportunities and productivity for both DoD and Industry, and result in the most effective and efficient expenditure of tax payer and shareholder dollars

Commercial IT exists and can be employed to support these goals

Approach

Revitalize sharing of industry Independent Research and Development (IR&D) and other industry activity with key DoD executives

- **Annual industry submission of information (mandatory for firms with over $11M of B&P and IR&D) available to any company that wants to participate**
- **Provide DoD executives with powerful search and analysis tools to review data**
- **Provide industry with focused window on DoD plans and activities**

DTIC's Role

- **Implement technology for the secure collection and analysis of information**
- **Manage user access**
- **Provide support and assistance to industry**
- **Provide collaborative environments around key Science and Technology areas**
  - **DoD only: areas to protect proprietary information**
  - **DoD and industry: areas to facilitate communications**

Opportunity: Use IR&D to Accelerate Innovation

Industry's objective is to target their IR&D investments towards future DoD solicitations

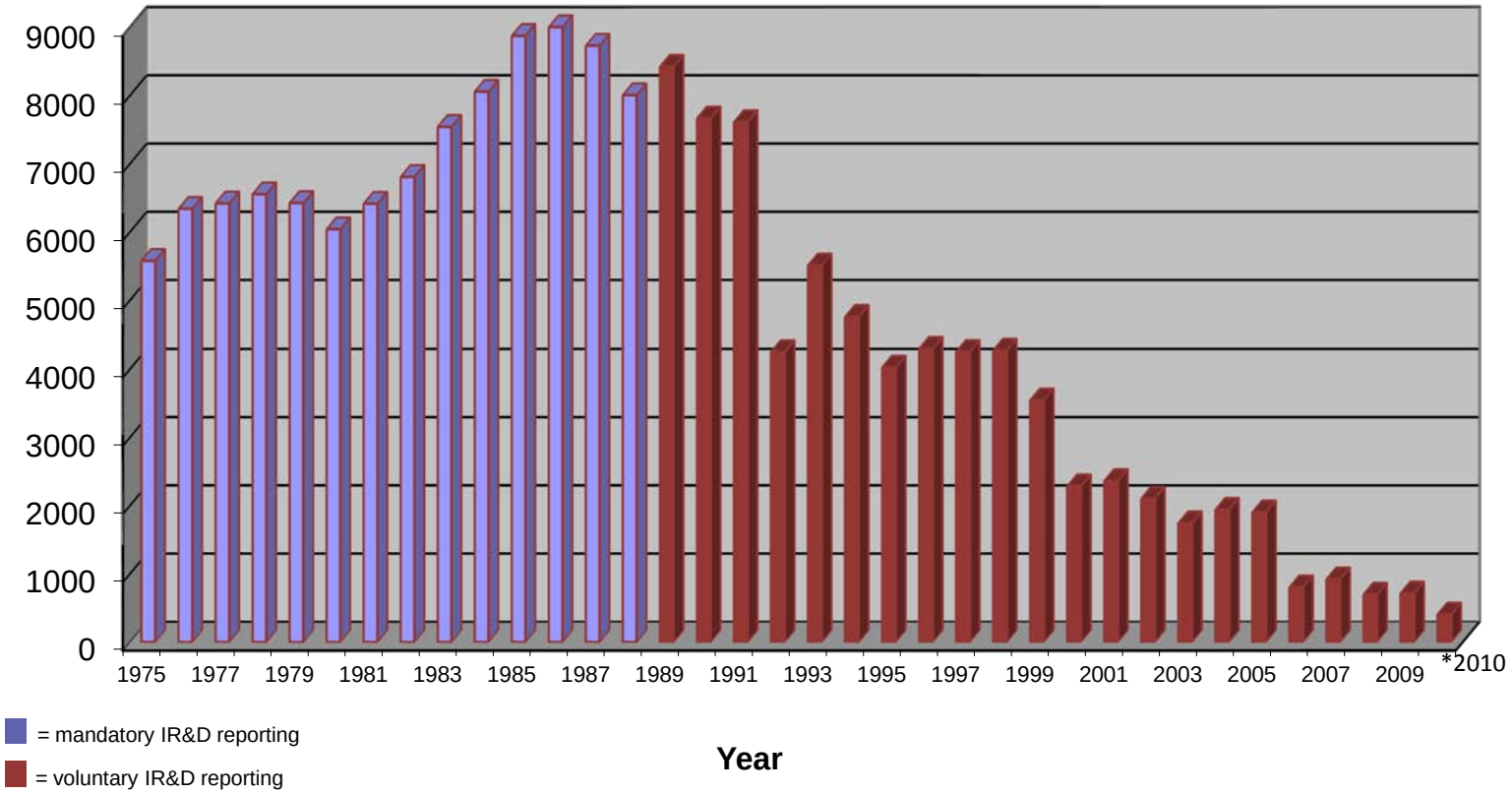
- ***Industry Challenge: Recognizing where DoD will focus solicitations in a cost effective way***

DoD's objective is to ensure technology superiority for our forces

- ***DoD Challenge: Discovering opportunities, and ensuring technical maturity (TRL 6) at Milestone B***

Current State: Industry IR&D Project Submissions

IR&D Input 1975-2010*



Beyond the Numbers

- **Today Industry IR&D information does not exist in a macro level collection nor is it accessible to a broad range of key executives in the DoD**
- **DoD has not invested in tools to support analysis or to make IR&D information actionable**
- **Most S&T areas have application across multiple Services and Agencies**

The Defense Innovation Marketplace

www.defenseinnovationmarketplace.mil

IR&D Submission

IR&D System Overview

Web Service XML
Batch Submission

Web Form
Submission

Industry

Internet

Submission of
Project Meta Data
& Attachments

DTIC

Web
Service

XML Feed

Over 2000 records
submitted to date

Form App

Form Feed

XML

DoD Executives

Retrieval

Vetted DoD Users

NIPRNET

Search, Analysis,
Metrics, Reports

IR&D
WEBSITE

APP
SERVER

IR&D DB

IR&D
Collaboration
SITE

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DEFENSE INNOVATION MARKETPLACE

And Other DoD Agencies

Industry Resources

The Defense Innovation Marketplace is your one-stop source for Department of Defense (DoD) science and technology (S&T) planning, acquisition resources, funding and financial information. Please let us know what other Department materials would be useful to post on the Marketplace so that industry can plan it's IR&D Investments at (comments@defenseinnovationmarketplace.mil).

Follow us on Twitter

Subscribe to RSS feed updates

** NEW ** as of 11/20

Strategic S&T Overview

US S&T Priorities

- Science and Technology Priorities for the FY 2014 Budget
- Science, Technology & Innovation For National Security

FY13 Testimony and Remarks

- Assistant Secretary of Defense for Research and Engineering (ASD(R&E))
  - ASD(R&E) Laboratories Testimony
- Army S&T Testimony
- Navy
- Air Force S&T Testimony
  - ISR Remarks
  - State of the Air Force
- USMC S&T Testimony

Service Priorities & Strategy Documents (continued)

Air Force

- USAF Energy Horizons ** NEW **
- USAF Technology Horizons ** NEW **
- USAF Force Structure Changes
- USAF S&T Strategic Plan
- Air Force S&T Strategy 2010
- Air Force S&T Plan

USMC

- Marine Corps Operational Energy
- USMC Military Robotics Summit
- 2012 Marine Corps Science & Technology Strategic Plan

Doing Business with DoD

All Resources by Organization

- Army
- Navy
- Air Force
- USMC
- Other DoD Agencies
- DoD Basic Research ** NEW **

Rapid Innovation Fund

- 2011 Contract Awards
- 2012 Solicitations

Small Business Innovation Research (SBIR)

- Small Business Resources

Special Initiatives

- Human Systems Interchange ** NEW **
- Interagency Systems Engineering Working Group ** NEW **

DoD Research and Technology Funding Opportunities

- Federal Business Opportunities
- DoD Research and Technology Opportunities
- 2012 Big Data Solicitations
- Current S&T Emphasis Area Solicitations

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And Other DoD Agencies

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ARMY

Acquisition

- Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT))
- Army Materiel Command
- Army Medical Research and Materiel Command
- Army Space and Missile Defense Center
- Corps of Engineers

Program Executive Offices

- PEO Ammunition
- PEO Aviation
- PEO Command Control and Communications
- PEO Combat Support and Combat Service Support

Sustainment

Doing Business with the U.S. Army

- Army Single Face to Industry
- U.S. Army Medical Research Acquisition Activity (USAMRAA)
- Army Corps of Engineers
- Army Manufacturing Technology Program

Small Business Opportunities

- Army Office of Small Business
- Army Small Business Innovation Research (SBIR)
- Army Medical Research and Materiel Command Small Business Programs
- Space And Missile Defense Center
- Army Contracting Command

More Resources

- Federal Business Opportunities
- All Industry Resources
- Navy Resources
- Air Force Resources
- USMC Resources
- DoD Basic Research Office
- Announced Army, Navy, & OSBP FY12 Rapid Innovation Fund BAAs
- 2011 Rapid Innovation Fund Awards
- Other DoD Resources
- DoD Research and Technology Opportunities

Navy Resources

S&T Overview

S&T Strategic Documents

- Naval Research Lab Overview ** NEW **
- Assured Access to Maritime Battlespace ** NEW **
- Naval Operational Energy Requirements ** NEW **
- Naval S&T Strategic Plan
- US Navy's Vision for Confronting Irregular Challenges
- S&T Plan
- US Pacific Command Strategy
- 21st Century Naval Amphibious Capability
- Sailing the Great Green Fleet

ONR S&T

- Expeditionary and Irregular Warfare ** NEW **
- Future Naval Capabilities Portfolio ** NEW **
- ONR Global ** NEW **
- Naval ST Strategic Plan Presentation ** NEW **
- Warfighter Performance ** NEW **
- USMC Capability Development ** NEW **

Naval Warfare Centers and Systems Centers

Naval Surface Warfare Centers

- Naval Surface Warfare Center, Carderock Division
- Naval Surface Warfare Center, Corona Division
- Naval Surface Warfare Center, Crane Division
- Naval Surface Warfare Center, Dahlgren Division
- Naval Surface Warfare Center, Explosive Ordnance Disposal Technology Division
- Naval Surface Warfare Center, Indian Head Division
- Naval Surface Warfare Center, Panama City Division
- Naval Surface Warfare Center, Port Hueneme Division

Naval Undersea Warfare Centers

- Naval Undersea Warfare Center, Newport Division
- Naval Undersea Warfare Center, Keyport Division

Naval Air Warfare Centers

- Naval Air Warfare Center, Air Division
- Naval Air Warfare Center, Weapons Division

Space and Naval Warfare Center Systems Centers

More Resources

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USMC Resources

The following Advanced Technology Investment Plan (ATIP) identifies and prioritizes the Top Technical issues within Program Executive Officer Land Systems (PEO LS) Programs with the goal of informing, influencing and aligning S&T investment to resolve program technical issues and support transition of critical capabilities to the Warfighter.

S&T Overview

S&T Strategic Priorities

- 2012 USMC S&T Strategic Plan
- Center for Lessons Learned ** NEW **

Testimony

- Marine Corps and Army Land Systems

Program Executive Officer Land Systems

Top Technical Issues

High Priority Technologies

Science and Technology Focus Areas

Advance Technology Investment Plan

Advanced Technology Investment Plan 2012

- ATIP Overview
- Concept to Capability Process
  - Amphibious Combat Vehicle (ACV)
  - Joint Light Tactical Vehicle (JLTV)
  - Marine Personnel Carrier (MPC)
  - Logistics Vehicle System Replacement (LVSR)
  - Medium Tactical Vehicle Replacement (MTVR)
  - Common Aviation Command & Control System

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Air Force Resources

S&T Overview

Testimony / Remarks

- 2012 Conference - Air Force ISR
- 2012 Conference - State of the Air Force
- Improving Military Capabilities for Cyber Operations
- Fiscal Year 2013 Air Force Science and Technology Testimony (Status and Health of Air Force Labs)
- Subcommittee on Emerging Threats and Capabilities Testimony

S&T Priorities and Strategic Documents

- USAF Energy Horizons ** NEW **
- USAF Technology Horizons ** NEW **
- USAF S&T Strategic Plan
- Annual Aviation Inventory and Funding Plan

Small Business Opportunities

- Air Force Small Business Innovation Research & Small Business Technology Transfer (SBIR & STTR)
- Small Business
- SBIR Fact Sheet
- Technology Transfer

Requests for Information

- ESG AFMESA Blood Products ** NEW **
- Hemorrhage Control ** NEW **
- ESG AFMESA Blood Transport ** NEW **
- Non-Invasive Intracranical Pressure Monitor
- Compartment Syndrome Monitor
- Family of Advanced Beyond-Line-of-Sight Terminals (Air Force)

Air Force Labs

More Resources

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Your Query

lasers

Refresh

Narrow your search

Proj Expenditures ($K)

From To

$0K $5000K

Year 2012

TRL

1 2 3 4 5 6 7 8 9

DTA

- Air Platforms
- Battlespace Environments
- Biomedical
- Chemical/Biological Defense
- Ground and Sea Vehicles
- Human Systems

Projects | **Companies** | Acquisition Planning | Overview

Companies: 56 **Projects:** 646 **Total Expenditures:** $411.91M

Your search for ***'lasers'*** matched **56 companies.**

Company Name Filter:

Results Per Page 10

Showing 1 to 10 of 56 entries

First Previous 1 2 3 4 5 Next Last

Company	Num Projects	TRL Chart	Expenditures
Company A	2		$2.1M
Company B	1		$1.72M
Company C	1		$2.88M
Company D	4		$5.73M
Company E	3		$5.62M
Company F	3		$10.63M
Company G	3		$6.72M
Company H	3		$7.62M
Company I	4		$9.3M
Company J	2		$5.11M

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Government Search Tools - BETA

FACSIMILE

Goal: Acquisition Program Planning Support

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lasers
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Narrow your search

Proj Expenditures ($K)
From To
$0K $5000K

Year 2012

TRL
1 2 3 4 5 6 7 8 9

DTA
- Air Platforms
- Battlespace Environments
- Biomedical
- Chemical/Biological Defense
- Ground and Sea Vehicles
- Human Systems
- Information Systems

Projects | Companies | **Acquisition Planning** | Overview

Support to Acquisition Program Managers

- **Provide assessment of DIB technology to support program goals**
  - **Discover the number of firms working in a technical area**
  - **Assess tech maturity**
  - **Faster, less work than an RFI**
- **Product: Acquisition Planning Report**
- **Prepared for PEOs / PMs**

ACQUISITION PLANNING REPORT

Technology: Solid State Lasers

Firms: 65
Total $: 10.5M
Avg. TRL: 5

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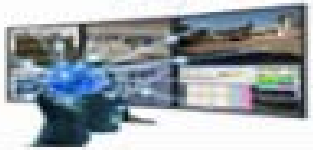
Human Systems Technology Interchange

Systems Interfaces and Cognitive Processing (SICP)



Personnel, Training, and Leader Development (PTLD)

How to share information when travel budgets and conferences are reduced?

Human Systems Areas of Interest

Social, Cultural, and Behavioral Understanding (SCBU)

Protection, Sustainment, and Physical Performance (PSPP)

Solution: Human Systems Technology Interchange via Marketplace

AFRL Human Systems Tech Directorate will use the Marketplace to provide detailed information to industry on technical interest areas

Industry will have opportunity to submit information on their R&D investments in Human Systems through the Marketplace. *(Information will be protected and available only to select Government personnel)*

AFRL will use this information to determine opportunities to accelerate and strengthen technical development with new solicitations.

AFRL will invite firms that submit information to participate in a *Spring 2013 collaborative technology* development workshop.

Human Systems Technology Interchange

Human Systems Home | Systems Interfaces | Personnel Training | Protection | Social Cultural Behavior

The Human Systems Community of Interest (CoI), is conducting a Joint Service/Industry Human Systems Technology Interchange with a face-to-face discussion planned in the Spring/Summer 2013 timeframe. The main goals of this interchange are to:

- Stimulate collaboration between Human Systems experts
- Gain insight into and leverage industry's corporate Human Systems Research & Development (R&D) investments to include Independent Research & Development (IR&D)
- Identify areas for more effective Department of Defense (DoD) investments in Human Systems related S&T programs

This site is designed to collect all government, industry and academia investments in Human Systems Research and Development. Please share your organization's entire funding portfolio related to Human Systems R&D (including Department of Defense reimbursed IR&D and corporate investments aimed at commercial markets or other Federal/State markets).

HS CoI Organization.

The CoI has senior leaders in Human Systems from the Assistant Secretary of Defense for Research and Engineering (ASD(R&E)), Army, Navy/Marine Corps, Air Force, Assistant Secretary of Defense for Health Affairs ASD(HA) and Defense Advanced Research Projects Agency.

The Human Systems Defense Technology Area (DTA) is the main focus of this technology interchange and has four sub-DTAs. A quick overview of each Sub-DTA follows, but not all sub-DTAs have the same information: definitions and specific technical areas of CoI interest (All sub-DTAs); problems, technical challenges/gaps and roadmaps (SICP/PTLD only).

Systems Interfaces and Cognitive Processing (SICP)

Social, Cultural, and Behavioral Understanding (SCBU)

Personnel, Training, and Leader Development (PTLD)

Protection, Sustainment, and Physical Performance (PSPP)

Human Systems Updates

Sign-up to receive Human Systems Interchange updates.

Sign-up for Updates

Recent Human Systems Q&A

Why an online interchange for Human Systems?

A: The Department continually works to improve how the Department engages with industry. This workshop/Human Systems activity is a test case to share key information in advance of the in-person meetings.

What if I just want to attend the Spring/Summer in-person meeting?

A: All organizations need to submit your specific Human Systems R&D project data into the Marketplace's secure site in order to evaluate potential collaborations. However, submission of R&D project reports does not guarantee participation in the face-to-face meeting. More details on criteria will follow.

Updated 11/6

Click Here for a full list of FAQs

Expectations

Jack Blackhurst, Director, Human Effectiveness Directorate, AFRL

"On the government's part, it gives us a vehicle to put our information out, and at the same time, it allows industry to put their information out in terms of where they're investing their dollars in a particular technology area"

"There's a wealth of information that doesn't exist anywhere else"
- 11/19/2012, Armed Forces Press Services

DoD Laboratory Autonomy Research Pilot Initiative

The Autonomy Research Pilot Initiative (ARPI) seeks to promote the development of innovative, cross-cutting science and technology for autonomous systems able to meet future Department of Defense (DoD) system and mission requirements. The goal of this effort is to find those technologies that will allow military systems to complete complex military missions in dynamic environments with the right balance of operator involvement.

The Challenge

The Department faces a challenge in developing autonomous technologies that enable the military to operate securely with greater interconnectedness, persistence, and expanded operational envelopes, and on shorter timelines. Coordinated cross-platform/machine operations will be necessary to facilitate these missions, as multiple systems must sense, perceive, plan, decide and act together. Future missions will be in contested environments; therefore, we must also anticipate interrupted and/or intermittent connectivity. Systems will need to be able to adapt to and/or learn from a highly complex and dynamic environments.

Four Technology Development Efforts

This Invitation for Proposals (IFP) is aimed at funding technology development efforts that address one or more of the four PSC-identified technical challenges.

1. Human/Autonomous Systems Interaction and Collaboration, including but not limited to:

- Robust Cognitive and Neurological Models that can model human interaction and teaming with autonomous systems
- Integration of Autonomy, Artificial Intelligence and Human Cognitive, or Other Human Models

Recent Q&A

Why is government not allowing industry to respond directly?

A: The overall intent of this pilot study is to foster collaboration, and innovative, cross-cutting work, within DoD's laboratories, that would not otherwise be funded by an individual Service.

How can Industry/Academia work with government on this effort?

A: Although the overwhelming majority of the intellectual effort should be done in-house by DoD lab teams, external participants are allowed to support the efforts.

Updated 11/30

Feedback/Contact

MORE INFORMATION

Please contact us at
comments@defenseinnovationmarketplace.mil
with more questions