



Reinvigorating Industry Independent Research & Development

April 26, 2013

**Colonel Brooks McFarland, USAF
OASD(R&E)**



Better Buying Power 1.0

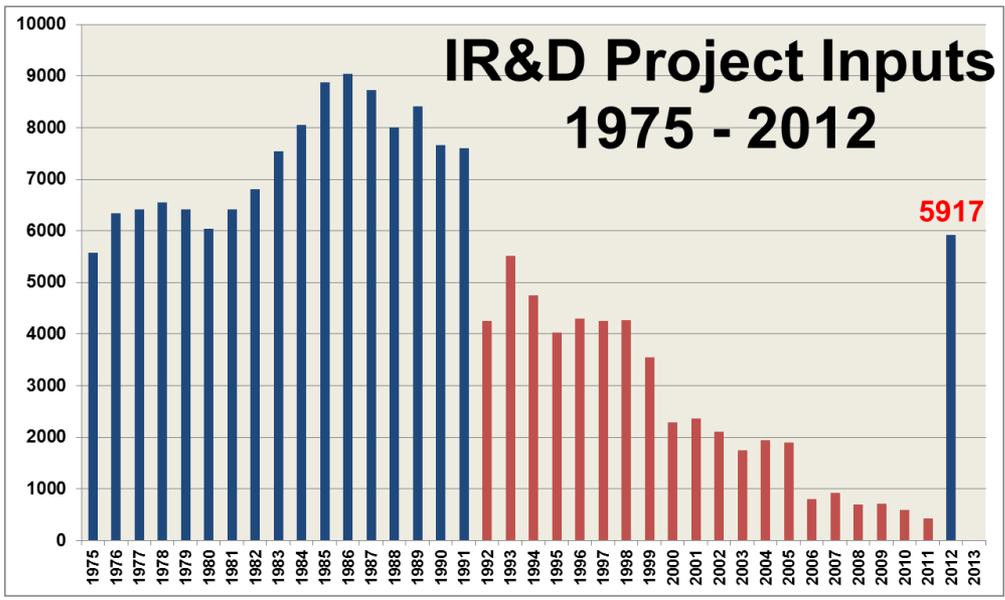
Reinvigorate industry's independent research and development and protect the defense technology base



DFARS Change

231.205-18 Independent research and development and bid and proposal costs.

(a) Definitions. As used in this subsection—





BBP 2.0



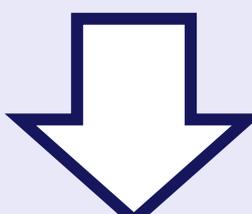
Expand programs to leverage industry's IR&D

PROGRAM

Leverage IR&D into specific programs

Industry, S&T and ACQ PMs

Technology Insertion



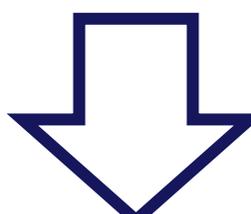
Creating options for the future & tech maturity for program insertion

COMPONENT

Assessment of Component S&T and Industry IR&D to support capabilities for core missions

**Industry Division Leaders
Component S&T Execs**

Strategic Planning



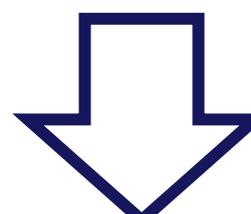
Inform S&T & ACQ investment portfolios

OSD

*Reinvigorating innovation
Protecting the Defense
Industrial Base*

**CEOs
Industry Associations
USD(AT&L)
ASD(R&E)
DASD(M&IBP)
DASD(Research)**

Setting Policy



Strengthen technical base

IR&D INITIATIVE – using actionable data to support research and development planning



And Other DoD Agencies

CONNECTING INDUSTRY & GOVERNMENT

The Defense Innovation Marketplace is a centralized resource to reinvigorate innovation.

For Industry, the Marketplace is a resource for information about Department of Defense investment priorities and capability needs. Additionally, industry uses this site to submit proprietary IR&D summary reports which are separately stored, accessed and used solely for compliance with the [Defense Federal Acquisition Supplement at 48 CFR 231.205-18\(c\)\(iii\)\(C\)](#).

For Government, the Marketplace provides access to search tools to assess and then leverage industry IR&D projects for current and future programs.

NEW IN THE MARKETPLACE

S&T Strategic Documents

- DoD Rapid Fielding Activities ****NEW****
- DoD Basic Research Activities ****NEW****
- FY14 Budget Request for DoD S&T ****NEW****
- DoD Science & Engineering Activities ****NEW****
- Systems Engineering FY2012 Annual Report ****NEW****
- Navy RDT&E FY14 Testimony ****NEW****

More...

Doing Business with DoD

- USD Better Buying Power 2.0 Directive ****NEW****
- Maritime Helicopter Capabilities-Based Assessment ****NEW****
- Rapid Acquisition Cell Omnibus ****NEW****
- USMC Advanced Technology Investment Plan (ATIP) 2013 ****NEW****

More...

News & Events

- 14th Annual Science & Engineering Technology Conference
- Sea Power Expo Online Overview
- Submarine and Surface Combat System Signal Processing Industry Day
- AMPV Industry Day

More...

INNOVATION OPPORTUNITIES

Resources for Industry

DoD Info for Business & Program Planning



Submit IR&D Data

Share projects with DoD Customers



Resources for DoD

Government employees search access tools



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Industry Resources

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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 its IR&D Investments at (comments@defenseinnovationmarketplace.mil).

Strategic S&T Overview

US S&T Priorities

- [Science and Technology Priorities for the FY 2014 Budget](#)
- [Science, Technology & Innovation For National Security](#)

Featured Testimony and Remarks

- [USAF Space Budget 2014](#)
- [ASD\(R&E\) Laboratories Testimony 2013](#)
- [Equipping the Modern Marine](#)
- [Equipping the Modern Soldier](#)

Service Priorities & Strategy Documents (continued)

- [Air Force](#)
- [USAF Posture Statement 2013 ****NEW****](#)
- [Air Force NDAA Implementation Plan](#)
- [U.S. Air Force Energy Strategic Plan](#)
- [Presentations from Air Force Basic Science Review](#)
- [2012-2013 Air Force](#)

Doing Business with DoD

All Resources by Organization

- [Army](#)
- [Navy](#)
- [Air Force](#)
- [USMC ****Updated****](#)
- [Combatant Commands \(CCMDs\)](#)
- [Other DoD Agencies/DoD Offices](#)
- [DoD Basic Research](#)
- [DoD Laboratories](#)
- [Federally Funded Research and Development Centers and University Affiliated Research](#)

Special Initiatives

- [Joint Service Human Systems IR&D Events](#)
- [AF Space IR&D Events](#)
- [Interagency Working Group - Complex Engineering](#)

DoD Research and Technology Funding Opportunities

[Federal Business Opportunities](#)



And Other DoD Agencies

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Human Systems



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SEARCH RESULTS: Projects View



DEFENSE INNOVATION MARKETPLACE

Gov't User Portal > New Search > **Results** | Dashboard | Collaborate | Send Feedback

Your Query: **Projects** Companies Overview

Projects: 1162 of 1224 Companies: 23 of 24 Total Funding: \$86.61B of \$86.66B

COMPANY PROPRIETARY DATA: Warning - This Data May be Subject to Export Control
 Your search returned too many results. Please refine your search to improve accuracy of results.
 Shown totals are calculated from the most relevant results and might be inaccurate.

Export All Summaries Sort By Relevance Title Company Date Database TRL Total Funding Status

Filter: Showing 1 to 10 of 1,162 entries Results Per Page 10

Item	Company	Date	IR&D	TRL	Total Funding	Status
1	COMPANY A	Apr 22, 2013	IR&D	TRL 1	\$10M	Completed
2	COMPANY B	Apr 11, 2013	IR&D	TRL 6	\$177K	New Start
3	COMPANY C	Mar 29, 2013	IR&D	TRL 1	\$1K	New Start
4	COMPANY C	Mar 29, 2013	IR&D	TRL 1	\$1K	New Start
5	COMPANY C	Mar 29, 2013	IR&D	TRL 1	\$1K	New Start
6	COMPANY C	Mar 29, 2013	IR&D	TRL 1	\$1K	New Start

Total Funding (\$K) From \$0K To \$3423101K

TRL

Keywords



SEARCH RESULTS: Single Project



<p>Your Query 12001598</p> <p>Search <input type="button" value="Clear All"/></p> <p>Refine your search</p> <p>Database <input checked="" type="checkbox"/> IR&D</p> <p>Year All</p> <p>Defense Technology Area</p> <p>DTA Subarea</p> <p>DTA Subarea Keywords System Interfaces and Cognitive Human, Social, and Cultural Science Personnel, Training, and Leadership Protection, Sustainment, and Business</p> <p>Technology Gap Interface Technology Training Technology</p> <p>Total Funding (\$K) From <input type="text"/> To <input type="text"/> \$0K \$500K</p> <p>TRL </p> <p>Keywords <input type="checkbox"/> gadgets (1)</p>	<p>Projects Companies Overview</p> <p>Projects: 1 of 1204</p> <p>Back to Projects</p>	<p>Companies: 1 of 22</p> <p>Total Funding: \$500K of \$86.65B</p> <p>Print</p>	<p style="text-align: center;">HYGIE-TECH USA PROPRIETARY DATA Warning - This Report May be Subject to Export Control</p> <p>TITLE: This is a fake record Type: IR&D YEAR: 2012</p> <p>Summary Chinese manufacturer Huawei's flagship Ascend P2 smartphone can be operated by users wearing gloves. It's just one of the innovations on display at year's Mobile World Congress -- a showcase of gadgets and gizmos that will allow us to wave goodbye to dying batteries, water damage and a whole range of perilous situations that dare to threaten the lives of our beloved mobile phones.</p> <p>IR&D Record Number: 12001598 Tech Readiness Level: 4 - Laboratory Validation Project Number: 135-246 Primary Defense Tech Area/Sub-Area: Information Systems Technology/Information Security Status Of Effort: New Start Anticipated Expenditures: \$500K</p> <p>Attachments DTA.docx - 21.21 KB</p> <p>Technical Point(s) of Contact Taitum Asher, tasher@gmail.com, 234-123-3456</p> <p>Target DoD Agencies DA - Army DAR - Defense Research Agency MDA - Missile Defense Agency USMC - United States Marine Corps</p> <p>Performing Organization Cage Code: 6EN03 HYGIE-TECH USA 125 WOLF RD ALBANY, NY 12205</p> <p>Parent Organization Cage Code: 6EN03 HYGIE-TECH USA 125 WOLF RD ALBANY, NY 12205</p> <p>Keywords gadgets, gizmos, smartphone, water damage, mobile phones</p> <p>Project Description: The best way to inform government users of the technical specifics of your project is to explain the objective and technical approach. This should not be a detailed technical report but an abstract. Two options are provided to accommodate different document formats. You may enter technical data directly in the Project Description section or by uploading files in the Project Document(s) section. You are required to enter information in at least one of these sections. The best way to inform government users of the technical specifics of your project is to explain the objective and technical approach. This should not be a detailed technical report but an abstract. Two options are provided to accommodate different document formats. You may enter technical data directly in the Project Description section or by uploading files in the Project Document(s) section. You are required to enter information in at least one of these sections.</p> <p style="text-align: center;">HYGIE-TECH USA PROPRIETARY DATA Warning - This Report May be Subject to Export Control</p>
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SEARCH RESULTS: Companies View



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Filter: Results Per Page: 10

Showing 1 to 10 of 23 entries NORTHROP GRUMAN SYSTEMS CORPORATION

Relevancy	Company	Num Projects	TRL Chart	Expenditures
1	COMPANY A	16		\$35.846M
2	COMPANY B	33		\$2.985M
3	COMPANY C	84		\$2.510M
4	COMPANY D	6		\$28.091M
5	COMPANY E	12		\$25.3M
6	COMPANY F	65		\$854K
7	COMPANY G	2		\$5.844M
8	COMPANY H	141		\$386K
9	COMPANY I	1		\$4.75M
10	COMPANY J	9		\$2.849M

Refine your search: Database (IR&D checked), Defense Technology Area, DTA Subarea, HS DTA Subarea Keywords, HS Technology Gap, Fiscal Year (All), Total Funding (\$K) (\$0K to \$3423101K), TRL (1-9), Keywords



Virtual IR&D Interchanges



DoD to Industry

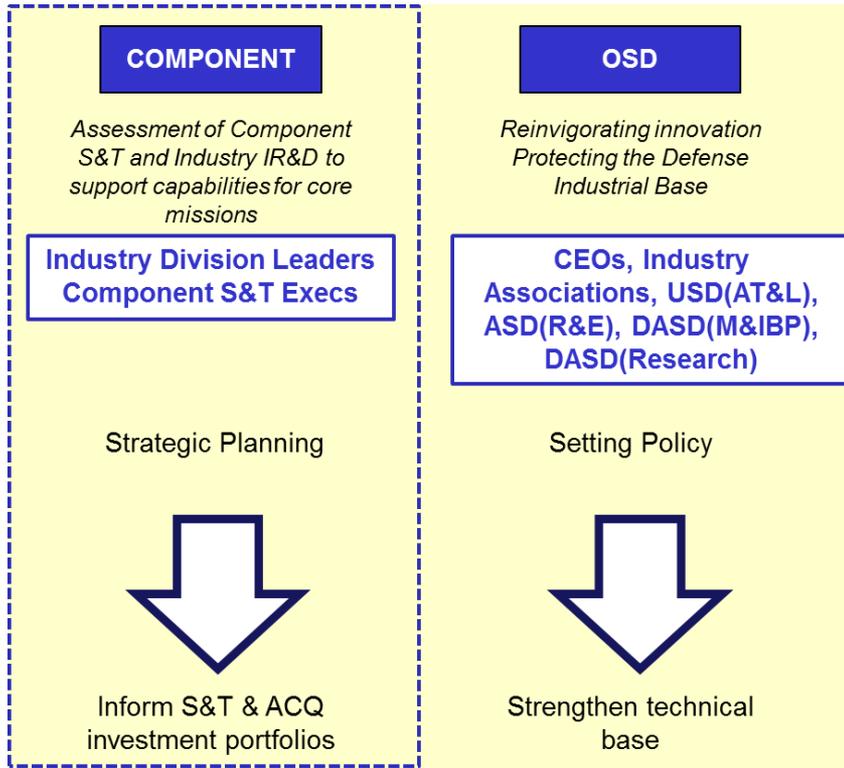
Industry to DoD

**Assess/
Align
Investments**

Transmits Tech Needs/Gaps **Responds With IR&D to meet Needs/Gaps**

DEFENSE INNOVATION MARKETPLACE

- Nov 12-Jun 13: Human Systems**
- Jan 13-June 13: Space**
- May 13-Sept 13: C2, ISR, Cyberspace**
- June 13-Nov 13: Air Superiority, Global Precision Attack, Personnel Recovery, Spec Ops, Mobility, ACS**
- Aug 13-Feb 14: Nuclear Weapons**





Virtual Interchange: Human Systems



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Interface Challenges

#1 – Human-Machine Teaming

Gaps

- Non-verbal cue understanding between the interface and the operator
- Natural interfaces to manage multiple scale (one to many), multiple role systems

#2 – Intelligent, Adaptive Aiding

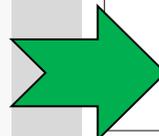
Gaps

- Metrics (systematic, scalable, relevant) for free form interactions
- Interfaces which adapt to the user's mental state
- Heuristics to determine relevant information to be exchanged during operations

#3 – Intuitive Interaction

Gaps

- Human-centric parameters for management of autonomous systems
- Goal-oriented interfaces for simultaneous multiple domain operations



Distribution A: Approved for Public Release

7



Access to Data: Industry

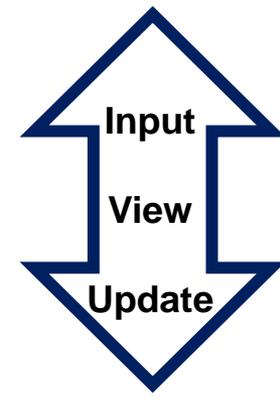
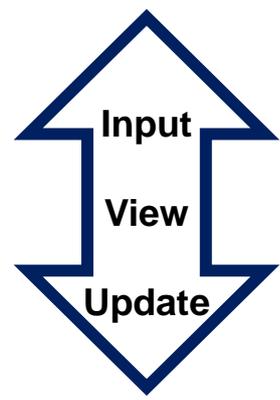
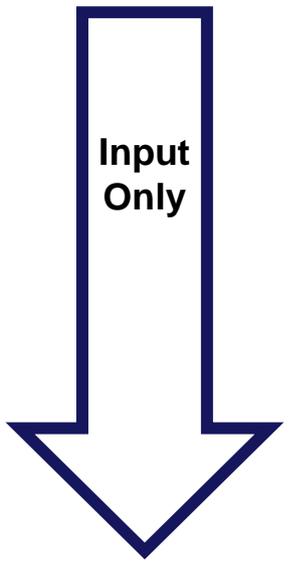


PIN Process

- Company Registrar
- Register Employee
- Request Password
- Access

- Company Registrar
- Register Employee
- Purchase ECA
- Access

More Access = Higher Admin Burden on Firms

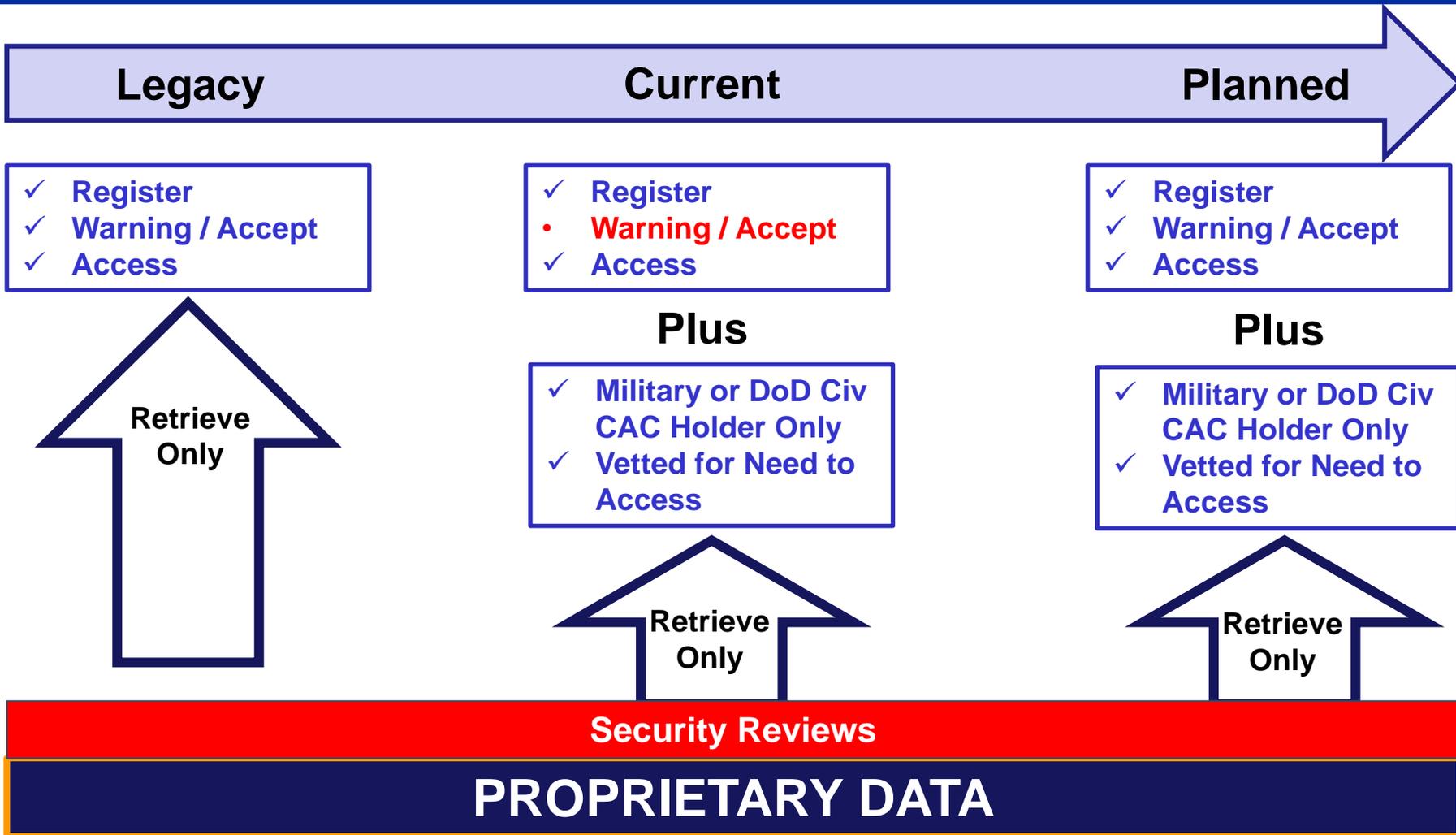


PROPRIETARY DATA

Protect Proprietary Information And Expand Access to Project Submissions



Access to Data: Government



Protect Proprietary Information And Expand Access to Project Submissions



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