Independent Research & Development (IR&D):
Entering Project Data into the Defense Innovation Marketplace

Option 1: Individual Project Data Entered in 5 Simple Steps

The following is an overview of the individual inputs that will be requested as well as the data type and length of allowed responses.

Step 1: Enter your Organization PIN

1) **What is a PIN?**
   Companies that have received significant reimbursement for IR&D projects in the past year will be provided a Personal Identification Number (PIN). **(A PIN will be provided to companies initially in February 2012)**

Step 2: Enter IR&D Project Information

2) **Project Title [required] –** Enter the title of your IR&D project. (***240 Alpha Numeric Characters)***

3) **Project Number** – Enter the unique identifier your firm uses to track this IR&D project. ***(30 Alpha Numeric Characters)***

4) **Status of Effort [required]** – If this is a new effort, select "New Start," but if the effort has been reported in the past, the status of effort would be "Follow On".

5) **Anticipated Expenditures ($K) [required] –** The forward-looking proposed allowable/allocable cost of the IR&D project. ***(8 Numeric Characters)***

6) **Primary Defense Technology Area and Subarea [required] –** Select (DROP DOWN MENU) the more relevant Defense Technology Area ***(45 Alpha Numeric Characters)*** and Subarea ***(56 Alpha Numeric Characters)*** for your primary entry. You may also select a secondary Defense Technology Area and Subarea.

7) **Targeted DoD Organization(s) –** Select (DROP DOWN MENU) the applicable DoD Organization(s) this project would most likely benefit.

8) **Technology Readiness Levels (TRL) [required] –** The TRL is a measure used to evaluate the maturity of evolving technologies (materials, components, devices, etc.) before that technology is incorporated into a system or subsystem. Select (DROP DOWN MENU) the anticipated TRL for your project at the end of the year.

<u>Step 3</u>: Enter IR&D Project Summary

9) **Project Summary [required] –** Provide a 1-2 sentence summary of your project to be used as a snapshot description included in search results. ***(Up to 1,000 Alpha Numeric Characters)***

10) **Keyword(s) [required] –** Use words that best characterize the project – the more specific, the better. Think of who the customer is and the words they would use to search for your project. A keyword can consist of a single word or a phrase with several words. ***(Up to 250 Alpha Numeric Characters)***

11) **Project Description and/or Project Documents [required] –** You may enter technical data directly into the Project Description section or upload files to the Project Documents section. You must enter information into at least one of these sections. ***(Up to 10,000 Alpha Numeric Characters)***

If entering data directly, it should be a concise description of your project and technical approach. It could include answers to the following questions:

- What problem are you trying to solve?
- What is new about your approach?
- If you succeed, what difference will it make?
- What will it provide in terms of new capabilities for the Department of Defense?

If you are uploading files, PDF and Microsoft Office file types are preferred and Classified attachments are not permitted. If your attachment contains company proprietary data, you must mark it as such in the document. ***(UP TO 5 Attachments; MAX 15 MG Bytes Each)***

<u>Step 4</u>: Provide Us With Your Information

12) **Your Contact Information [required] –** Enter your first and last name, phone number, and e-mail address.

13) **Technical Contact(s) [required] –** Enter the first and last name, phone number, and e-mail address of any Point(s) of Contact who can discuss this project with interested DoD users. You may list up to five contacts.

<u>Step 5</u>: Review Your Entry and Submit

Appendix A – Defense Technology Areas (and Sub-areas)

Main Area	Sub-Area
1) Air Platforms	Aircraft Power
1) Air Platforms	Ballistic Protection
1) Air Platforms	Fixed Wing Vehicles
1) Air Platforms	High Speed/Hypersonics
1) Air Platforms	Near-Space (High Altitude)
1) Air Platforms	Rotary Wing Vehicles
1) Air Platforms	Unmanned Aerial Vehicles (UAVs)
1) Air Platforms	Versatile Affordable Advanced Turbine Engines (VAATE)
2) Battlespace Environments	Lower Atmosphere Environments
2) Battlespace Environments	Ocean Battlespace Environments
2) Battlespace Environments	Space/Upper Atmosphere Environments
2) Battlespace Environments	Terrestrial Environments
3) Biomedical	Combat Casualty Care
3) Biomedical	Infectious Diseases of Military Importance
3) Biomedical	Medical Radiological Defense
3) Biomedical	Military Operational Medicine
4) Chemical/Biological Defense	Decontamination
4) Chemical/Biological Defense	Detection
4) Chemical/Biological Defense	Diagnostics
4) Chemical/Biological Defense	Emerging Threats/Special Programs
4) Chemical/Biological Defense	Modeling and Simulation
4) Chemical/Biological Defense	Pretreatments
4) Chemical/Biological Defense	Protection
4) Chemical/Biological Defense	Therapeutics
4) Chemical/Biological Defense	Threat Agent Science
5) Ground and Sea Vehicles	Ballistic Protection
5) Ground and Sea Vehicles	Ground Vehicles
5) Ground and Sea Vehicles	Sea Vehicles
5) Ground and Sea Vehicles	Unmanned Ground Vehicles
5) Ground and Sea Vehicles	Unmanned Sea Vehicles
6) Human Systems	Human, Social, and Cultural Sciences and Modeling
6) Human Systems	Personnel, Training and Leader Development
6) Human Systems	Protection, Sustainment and Physical Performance
6) Human Systems	System Interfaces and Cognitive Processing

7) Information Systems Technology	Algorithms
7) Information Systems Technology	Communications and Networking
7) Information Systems Technology	Computing and Software Technology
7) Information Systems Technology	Information Security
7) Information Systems Technology	Knowledge and Information Management/Battle Command
7) Information Systems Technology	Modeling and Simulation Technologies
8) Materials/Processes	Civil Engineering
8) Materials/Processes	Environmental Quality
8) Materials/Processes	Manufacturing Technology for Affordability
8) Materials/Processes	Materials/Processes for Survivability and Life Extension
9) Nuclear Technology	Forensics and Detection Technology
9) Nuclear Technology	Lethality and Effects
9) Nuclear Technology	Modeling and Simulation
9) Nuclear Technology	Radiation Hardened Microelectronics
9) Nuclear Technology	Systems Effects and Survivability Technology
9) Nuclear Technology	Test and Simulation Technology
9) Nuclear Technology	Threat Reduction and Detection Technology
9) Nuclear Technology	Warfighter Consequence Management Technology
10) Sensors, Electronics & Electronic Warfare	Acoustic Sensors
10) Sensors, Electronics & Electronic Warfare	Automatic Target Recognition
10) Sensors, Electronics & Electronic Warfare	Counter WMD
10) Sensors, Electronics & Electronic Warfare	Electro-Optical Sensors
10) Sensors, Electronics & Electronic Warfare	Electro-Optical Technology
10) Sensors, Electronics & Electronic Warfare	Electronic Materials
10) Sensors, Electronics & Electronic Warfare	Electronics Integration Technology
10) Sensors, Electronics & Electronic Warfare	EW Electro-Optical/Infrared (EO/IR)
10) Sensors, Electronics & Electronic Warfare	EW Integrated Technologies
10) Sensors, Electronics & Electronic Warfare	EW Radio Frequency (RF)
10) Sensors, Electronics & Electronic Warfare	Integrated Platform Electronics
10) Sensors, Electronics & Electronic Warfare	Microelectronics
10) Sensors, Electronics & Electronic Warfare	Radar Sensors
10) Sensors, Electronics & Electronic Warfare	Radio Frequency Components
10) Sensors, Electronics & Electronic Warfare	Spectrum Management
11) Space Platforms	Space and Launch Vehicles
11) Space Platforms	Space Propulsion
12) Weapons	Counter WMD
12) Weapons	Countermine/Mines

12) Weapons	Guidance and Control
12) Weapons	Guns
12) Weapons	High-Power Microwave
12) Weapons	Lasers
12) Weapons	Missiles
12) Weapons	Munitions
12) Weapons	Non-Lethal Weapons
12) Weapons	Ordnance
12) Weapons	Propulsion
12) Weapons	Undersea Weapons
12) Weapons	Weapons Lethality/Vulnerability
13) Other – please describe	User has to provide text if 'Other' is selected

Appendix B – Technology Readiness Level

Technology Readiness Level		Description
1	Basic principles observed and reported.	Lowest level of technology readiness. Scientific research begins to be translated into applied research and development. Examples might include paper studies of a technology's basic properties.
2	Technology concept and/or application formulated.	Invention begins. Once basic principles are observed, practical applications can be invented. Applications are speculative and there may be no proof or detailed analysis to support the assumptions. Examples are limited to analytic studies.
3	Analytical and experimental critical function and/or characteristic proof of concept.	Active research and development is initiated. This includes analytical studies and laboratory studies to physically validate analytical predictions of separate elements of the technology. Examples include components that are not yet integrated or representative.
4	Component and/or breadboard validation in laboratory environment.	Basic technological components are integrated to establish that they will work together. This is relatively "low fidelity" compared to the eventual system. Examples include integration of "ad hoc" hardware in the laboratory.
5	Component and/or breadboard validation in relevant environment.	Fidelity of breadboard technology increases significantly. The basic technological components are integrated with reasonably realistic supporting elements so it can be tested in a simulated environment. Examples include "high fidelity" laboratory integration of components.
6	System/subsystem model or prototype demonstration in a relevant environment.	Representative model or prototype system, which is well beyond that of TRL 5, is tested in a relevant environment. Represents a major step up in a technology's demonstrated readiness. Examples include testing a prototype in a high-fidelity laboratory environment or in simulated operational environment.
7	System prototype demonstration in an operational environment.	Prototype near, or at, planned operational system. Represents a major step up from TRL 6, requiring demonstration of an actual system prototype in an operational environment such as an aircraft, vehicle, or space. Examples include testing the prototype in a test bed aircraft.

8	Actual system completed and qualified through test and demonstration.	Technology has been proven to work in its final form and under expected conditions. In almost all cases, this TRL represents the end of true system development. Examples include developmental test and evaluation of the system in its intended weapon system to determine if it meets design specifications.
9	Actual system proven through successful mission operations.	Actual application of the technology in its final form and under mission conditions, such as those encountered in operational test and evaluation. Examples include using the system under operational mission conditions.