Technology Transfer Plan for the Department of Homeland Security

Executive Summary

On October 28, 2011, President Obama released a memorandum for the Heads of Executive Departments and Agencies, Subject*: Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Business*. This memorandum requests that agencies with federal laboratories develop plans that establish performance goals to increase the pace of technology transfer and commercialization activities in partnership with non-federal entities. The Department of Homeland Security (DHS) has developed a plan to discuss goals over the next five years and the metrics that will be employed to track the progress of such goals. Much of this plan focuses on continuing to build a robust DHS Technology Transfer Program that will increase output Department-wide throughout the upcoming five-year period.

Background

In October 2011, the President signed a memorandum for the Heads of Executive Department and Agencies, Subject: *Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Business*. The memorandum requests that agencies with federal laboratories develop plans that establish performance goals to increase the pace of technology transfer and commercialization activities with non-federal entities.

In 2005, the Secretary of the Department of Homeland Security (DHS) delegated agency technology transfer responsibilities to the Science and Technology Directorate (S&T), as authorized by the Federal Technology Transfer Act of 1986, Executive Order 12591 (Facilitating Access to Science and Technology) and the **Stevenson-Wydler Technology Innovation Act of 1980**. The act is embodied in the U.S. Code as **15 USC § 3710, Utilization of Federal Technology**.

In February 2008, the DHS Technology Transfer Office was established to set policy, manage the Technology Transfer Program, and direct technology transfer activities for the agency.

Definition of Technology Transfer

The Federal Laboratory Consortium defines technology transfer as

> the process by which existing knowledge, facilities, or capabilities developed under federal research and development (R&D) funding are utilized to fulfill public and private needs.

DHS further defines technology transfer as

> a process that includes: research, invention, intellectual property, licensing, and commercialization. Technology Transfer can result in new products, new services, and new businesses. Partnerships at any of these steps in the process are considered a successful technology transfer.

Introduction

Several legislative acts promote and define technology transfer policy within the federal government:

- The **Stevenson-Wydler Technology Innovation Act of 1980** (P.L. 96-480) primarily focuses on inducing federal laboratories to become more involved in the technology transfer process. The law requires an Office of Research and Technology Applications (ORTA) in each laboratory to coordinate and promote technology transfer. The DHS ORTA is the Technology Transfer Office.

- The **Federal Technology Transfer of Act of 1986** (P.L. 99-502) requires all federal laboratory scientists and engineers to consider technology transfer an individual responsibility, and technology transfer activities are to be considered in employee performance evaluations.
- 15 USC **§** 3710 further defines technology transfer policy and serves as the basis for establishing the technology transfer program within DHS as a concerted effort to transfer homeland security developments or technologies to entities in the federal, state, and local government and the private sector.

Overview of Technology Transfer at the Department of Homeland Security

The DHS Technology Transfer Office is housed within the Science and Technology Directorate, Research and Development Partnerships Group. The Technology Transfer Office operates from a centralized location to set DHS technology transfer policy, and to promote the transfer and/or exchange of technology with industry, state and local governments, academia, and other federal agencies. The technologies developed and evaluated within DHS can have tremendous potential for applications throughout the nation and dramatically enhance the competitiveness of individual small businesses as well as expanding areas of exploration and cooperation for all non-federal partners.

Per 15 USC **§** 3710, the main functions of the Office of Research and Technology Applications, or ORTA (referred to as the Technology Transfer Office throughout this document) include

(1) **preparing assessments** for selected R&D projects that may have potential commercial applications.

(2) **providing and disseminating information** on federally owned or originated products, processes, and services having potential application to state and local governments and to private industry.

(3) **cooperating with and assisting** the National Technical Information Service, the Federal Laboratory Consortium for Technology Transfer, and other organizations which link R&D resources of that laboratory and the federal government as a whole to potential users in state and local government and private industry.

(4) **providing technical assistance** to state and local government officials.

(5) **participating** in technology transfer programs**,** where feasible, in the region, state, or local jurisdiction in which the federal laboratory is located (for example, Maryland Technology Roundtable and the Interagency Working Group for Technology Transfer).

Technology Transfer Intellectual Property System

The DHS Technology Transfer Office utilizes a Technology Transfer Intellectual Property Knowledge Management System (T2IPS) to capture all agreements and inventions throughout DHS. The T2IPS serves as a repository of all technology transfer agreements and allows the process for those agreements to be captured and documented. In addition, the T2IPS serves as a docketing system while intellectual property moves through the prosecution process. The T2IPS will be a key tool for helping to determine whether the DHS Technology Transfer Office is meeting its goals for increasing the number of partnerships at an accelerated rate of execution.

DHS Laboratories

In the Utilization of Federal Technology, a laboratory is broadly defined:

> An organization that has, as one of its missions, the performance of research, development, or engineering. *This definition is not confined to those DHS organizations that are formally designated as "laboratories." The intent of this definition is to encompass the wide range of organizations that sponsor and manage research, development, and engineering programs in accordance with 15 U.S.C. §3710a (d)(2)(A).*

The DHS Technology Transfer Office supports the DHS laboratories listed below:

- Plum Island Animal Disease Center (PIADC)
- Transportation Security Laboratory (TSL)
- National Biodefense Analysis and Countermeasures Center (NBACC)
- Chemical Security Analysis Center (CSAC)
- National Urban Security Technology Laboratory (NUSTL)
- Coast Guard Research and Development Center (CGRDC)
- Secret Service Laboratory (SSL)
- National Firearms and Tactical Training Unit (NFTTU) Armory Operations Branch
- Federal Law Enforcement Training Center (FLETC).

Also, the DHS Technology Transfer Office works closely with the Department of Energy National Laboratories to assist with any DHS mission-supporting technology transfer needs.

The DHS laboratory assets are summarized in the paragraphs that follow.

Plum Island Animal Disease Center (PIADC)

- The research mission of PIADC is to protect the nation against animal diseases that could accidentally or deliberately be introduced into the country. PIADC is the only U.S. animal disease research facility that can provide confirmatory diagnostic capability for

specific high-consequence foreign animal diseases in livestock, such as cattle, sheep, and swine.

Transportation Security Laboratory (TSL)

- TSL is a multidisciplinary test and evaluation laboratory conducting testing and evaluation (T&E) related to explosives and weapons detection and other measures for security and countering threats to civil transportation. Programs are conducted that develop and verify promising technologies to the point of operational T&E.

National Biodefense Analysis and Countermeasures Center (NBACC)

- NBACC applies science to challenges critical to defending the nation against bioterrorism. NBACC was established to serve as a national resource for understanding the scientific basis of the risks posed by biological threats and to attribute their use in bioterrorism or biocrime events.

Chemical Security Analysis Center (CSAC)

- CSAC provides DHS with a scientific basis for the awareness of chemical threats and the attribution of their use against the American public. CSAC is a resource that provides a centralized compilation of chemical hazard data, using this data in an organized effort for threat analytical purposes.

National Urban Security Technology Laboratory (NUSTL)

- The mission of NUSTL is to test, evaluate, and analyze homeland security capabilities while serving as a technical authority to first responder, state, and local entities, especially in the areas of nuclear and radiological threats. Its broad-ranging relationships with the homeland security community complement the laboratory's test and evaluation capability by enabling use of the New York metropolitan area as an urban testbed.

Coast Guard Research and Development Center (CGRDC)

- The Research and Development Center is composed of scientists, engineers, and support personnel who are uniquely qualified and positioned to introduce science and technology into the Coast Guard. Research and Development Center personnel have both expertise in, and experience with, the business practices (*e.g.*, missions, policies, plans, processes) of operational and support personnel accomplishing the missions of the Coast Guard, as well as the knowledge of existing and emerging science and technology.

Secret Service Laboratory (SSL)

- The U.S. Secret Service is home to an advanced forensic laboratory, which includes the world's largest ink library. Secret Service forensic analysts examine evidence, develop investigative leads, and provide expert courtroom testimony. The lab is accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (AS-CLD/LAB).

National Firearms and Tactical Training Unit (NFTTU) Armory Operations Branch

- The NFTTU is the single focal point for firearms and use of force issues within Immigration and Customs Enforcement (ICE), including firearms, ammunition and body armor acquisition and maintenance, inventory control, defensive tactics instructor certifications, field-delivered firearms and force training, specialized tactical policy and training, firearms and force policy formulation, and all armory operations for ICE. In addition, the NFTTU provides armory services to US Customs and Border Protection and the Federal Protective Service under shared service agreements.

Federal Law Enforcement Training Center (FLETC)

- FLETC trains those who protect our homeland. The center serves as an interagency law-enforcement training organization for approximately 90 federal agencies and also provides services to state, local, tribal, and international law enforcement agencies. As threats change and technologies evolve, the training needed to keep U.S. agents and police officers current and safe is also changing and evolving.

Mechanisms/ Opportunities used by DHS

Various mechanisms are used to accomplish technology transfer. DHS currently has the authority to utilize the mechanisms discussed in the following paragraphs.

Cooperative Research and Development Agreement (CRADA)

- The CRADA is the most commonly used technology transfer mechanism at DHS. CRADAs are used for collaboration between federal laboratories and non-federal partners in all aspects of a product and/or system life cycle where research, development, test, and evaluation (RDT&E) activities occur. With a CRADA, the federal parties may not provide funds but can contribute personnel, services, facilities, equipment, intellectual property or other resources with or without reimbursement. The non-federal parties may provide funds, personnel, services, facilities, equipment, intellectual property, or other resources toward the conduct of specified R&D efforts that are consistent with the missions of the component or laboratory.

Memorandum of Understanding (MOU)

- An MOU provides the framework for cooperation and coordination with other agencies. This agreement helps to ensure smooth operations with shared resources or workflow by creating a clear understanding of each party's commitment, purpose, and contributions.

Licensing Agreements

- A license is an agreement between a licensor (*i.e.*, the holder of the intellectual property) and a licensee (*i.e.*, the industry partner) that provides the terms and conditions under which the licensee may use the intellectual property owned by the licensor. A license agreement also ensures that the licensee's use of the intellectual property would not be considered an infringement. DHS uses licensing agreements to commercialize inventions that stem from agency-supported R&D.
- DHS may enter into **exclusive** or **non-exclusive licensing agreements**. An exclusive licensing agreement grants intellectual property rights to another party for their sole use in a given field or geographic area. A non-exclusive licensing agreement grants intellectual property rights to an unlimited number of parties in a given field of use or geographic area.
- DHS licensing encompasses the transfer of all types of intellectual property rights from DHS to the private sector, including patents, trademarks, copyrights, and commercial usage of the DHS seal. The DHS Technology Transfer Office has been involved in the technology transfer licenses for the DHS patent and trademark portfolios.
- Regarding the DHS patent portfolio, because the agency and its Technology Transfer Office are new, DHS is in the nascent stages of building its patent portfolio. As of FY 2011, DHS had 2 patents, 38 invention disclosures, and 12 patent applications pending at the United States Patent and Trademark Office (USPTO). DHS does not currently have any patent licenses; nonetheless, DHS has entered into several CRADAs to further the technology development of DHS intellectual property.
- Regarding the DHS trademark portfolio, DHS frequently enters into non-royalty-bearing trademark licensing agreements with state and local agencies and non-federal partners to further accomplish the technology development of its intellectual property. From FY 2008 to the present, DHS has entered into more than 1,000 active trademark licenses, including 682 that were newly executed in FY 2011. The trademark licenses allow a non-federal organization to use DHS trademarks under certain terms and conditions related to the programmatic objectives of the program with which the trademark is associated.
- DHS also has several certification programs, an important component of which is a type of trademark called a certification mark. A "certification mark" is any word, name, symbol, or device, or any combination thereof that is used by a third party to indicate that

the goods or services being offered conform to the standards established by the mark's owner. As part of a DHS certification program, a non-federal organization is permitted to display and use a DHS certification mark to signify that the organization has met DHS-developed or -adopted standards or criteria. The certification programs transfer technology on multiple levels; to be certified, an organization must either comply with or adopt the DHS criteria, and must display the DHS certification mark on its product, on its packaging, and in its marketing literature to signify DHS approval of the standards or criteria at issue.

- The Technology Transfer Office has also engaged in licensing of the DHS seal for use on authorized DHS-branded merchandise. Some of the licenses are with retailers; at least one is with a manufacturer. As a general practice, licenses with manufacturers will require a percentage of royalties to be returned to DHS from the sale of the DHS-branded merchandise.

Partnership Intermediary Agreement (PIA)

- 15 USC 3715 defines a partnership intermediary as an agency or affiliate of a state or local government that assists, counsels, advises, evaluates, or otherwise cooperates with small business firms, institutions of higher education or educational institutions that need or can productively use technology-related assistance from a federal laboratory. PIAs are agreements between DHS and the agency of such a state or local government or a non-profit entity to allow the partnership intermediary to:
  - Identify new technologies in the private sector that can be utilized by DHS.
  - Facilitate joint projects between DHS and private companies, as well as between agencies and academic institutions, in order to accelerate delivery of technological capabilities to the nation.

Non-disclosure Agreements

- Non-disclosure agreements are used to protect proprietary information exchanged between parties during discussions and collaborations on specific technical areas. At DHS, non-disclosure agreements are usually used with another form of collaborative agreement, such as a CRADA.

Other Transaction Agreements

- Other Transaction Agreements are transactions with a particular nontraditional government contractor that is not a Federal Acquisition Regulations-based procurement contract, grant, or cooperative agreement, and:

  1) supports basic, applied, and advanced research and development that promotes homeland security;

2) advances the development, testing and evaluation, and deployment of critical homeland security technologies; and

3) accelerates the prototyping and deployment of technologies that would address homeland security vulnerabilities.

- DHS uses two types of Other Transaction Agreements: Other Transactions for Research and Other Transactions for Prototype Projects.

DHS System Efficacy through Commercialization, Utilization, Relevance and Evaluations (SECURE) Program

The DHS SECURE Program is operated by the DHS S&T Commercialization Office. SECURE establishes cooperative research and development partnerships with the private sector to validate and verify the ability of potential solutions to address DHS requirements. This program uses CRADAs that enable information sharing between DHS and the private-sector partner while leveraging the unique expertise and resources of both entities to serve business opportunities for needed technologies in the homeland security marketplace. Successfully completed partnerships result in SECURE Certified solutions that are proven to demonstrate operational performance through the evaluation of technical test–and-evaluation documentation to ensure that the solution performs in accordance with DHS requirements. This program facilitates the acquisition of certified goods by DHS users who are assured that system performance will meet their needs.

The following table shows the technology transfer mechanisms most likely to be used by each lab.

	CRADA	Licensing Agreement	LP-CRADA	MOA	MOU	NDA	OTA	PIA	Work-for-Others Agreement
PIADC	✓	✓	✓	✓	✓				
TSL	✓	✓	✓	✓	✓				
NBACC	✓	✓	✓						✓
CSAC	✓			✓	✓				
NUSTL	✓			✓	✓				
CGRDC	✓								
SSL	✓			✓	✓				
NFTTU	✓								
FLETC	✓			✓	✓				

Current Partnerships

Maryland Technology Development Corporation (TEDCO)

- TEDCO provides a variety of funding programs and in November 2010, the Joint Technology Transfer Initiative (JTTI) was launched. This initiative awards up to $75,000 to for-profit small businesses that can show how a proposed technology will meet the needs of DHS and/or U.S. Army Medical Research and Materiel Command (USAMRMC) and/or the commercialization of DHS or USAMRMC technologies. In addition to supporting the technology development effort, TEDCO participates with the DHS Invention Evaluation Board (IEB) to determine commercial applicability of DHS inventions.

TechComm, Center for Innovation in Arlington, Texas

- TechComm is a new federal partnership intermediary representing a coalition of government agencies and their respective federal laboratories. TechComm connects the government agencies/laboratories with industry, academic institutions, venture capital partners, and economic development organizations. The TechComm network of participating organizations will be supported by a web-based "portal," which can serve as a backbone linking the databases and search engines of all partners. This "portal" will provide a linkage between federal laboratories, industry, and educational institutions.

AutoHarvest Foundation

- DHS recently signed an MOU with AutoHarvest and United States Army Tank Automotive Research, Development, and Engineering Center (TARDEC). AutoHarvest will assist the U.S. Army TARDEC and DHS by enabling their participation in an online portal where interested private-sector entities can learn about DHS and Army needs, resources, and missions.

Massachusetts High Technology Council, Inc. (MHTC)

- The MHTC will work with DHS to further commercialization of technologies. MHTC will utilize their Innovation Access Network (IAN) for displaying technology disclosure materials from industry and academic institutions. DHS technology requirements will be displayed to companies interested in the DHS SECURE Program.

DHS Technology Transfer Goals, Objectives, and Metrics in 2013-2017

With any new office or program, it is imperative that personnel throughout the agency are made aware of its function. Engineers, scientists, and program managers need to be familiar with technology transfer processes and be aware of their potential for helping to solve technological

problems. The goals outlined below are aimed at continuing to enhance the DHS Technology Transfer Office so that it will optimize its fulfillment of requirements stated by law and provide cutting-edge technology to the homeland security enterprise and the nation.

Training

The DHS Technology Transfer Office has limited personnel. Thus, the office has teamed with attorneys from the Office of General Counsel Technology Programs to deliver training to various laboratories and technical groups within DHS. In fiscal years 2013 through 2017, the Technology Transfer Office with continue to conduct training, but the training will be designed for smaller, specific groups, focusing on specific technology-transfer topics based on the audience. Audiences that lack a strong understanding of technology transfer will be trained on introductory topic areas, such as how to enter into CRADA agreements, how to complete invention disclosures, and the value of licensing inventions. The new, advanced topic areas of training will be geared toward those laboratories, which have already received the formal presentation "Overview Technology Transfer and Intellectual Property Training." The program will continue using this overview course to train laboratories. These training presentations are aimed toward expanding the knowledge base of technology-transfer processes and their importance in an effort to spur increases in output.

- **Performance Goal:** Increase the output of agreements and invention disclosures by 10 percent each fiscal year during the next five-year period at those laboratories selected for training.
- **How to Measure:** In the past, the numbers of agreements and invention disclosures have increased immediately after the delivery of training. The DHS Technology Transfer Office will continue to measure the increase of agreements and/or invention disclosures produced by a particular group after the group is trained. Agreement and invention disclosure outputs will be recorded through the T2IPS; before-and-after figures will be compared to measure improvements from quarter-to-quarter.

Cooperative Research and Development Agreement Evaluations

Since the DHS Technology Transfer Office was established in February 2008, the number of CRADAs that DHS has entered into with non-federal partners has grown significantly. In fiscal years 2013 through 2017, the Department plans to execute 10 percent more CRADAs each year than it did the year before. DHS also plans to measure the rate of CRADA execution in an attempt to accelerate the completion of review for agreements.

Additionally, the DHS Technology Transfer Office plans to add an evaluation form to all of its CRADAs, to be completed by each collaborating party. Both the Principal Investigator for DHS and the non-federal partner will provide data on the impact made by the CRADA on the resultant technology. This additional information will allow DHS to determine the impact level of

technology transfer agreements. Once the form is completed, DHS will continue to monitor any output resulting from the CRADA.

- **Performance Goal:** Increase the number of collaborative agreements by 10 percent each fiscal year during the next five-year period and examine the subsequent impact from those agreements.
- **How to Measure:** The DHS Technology Transfer Office will use the T2IPS to total the number of CRADAs executed each fiscal year and then measure the increase to establish whether the 10 percent increase goal was met. Target goal projections will be set at the beginning of each fiscal year; they will be based on previous outputs. Office staff will evaluate progress on a quarterly basis to ensure that numbers are on pace to fulfill target goals.

  Additionally, the T2IPS will be used to track the number of days needed for a particular agreement to be executed. This data has not been collected in previous years, but starting in FY 2013, the DHS Technology Transfer Office will track how long it takes, in days, from CRADA start to execution. Once an average duration has been established, the Department will be able to gauge realistic expectations and set goals to reduce the period of time needed for processing.

  Regarding the impact level, the CRADA evaluation form will capture relevant information, including data conveying whether the CRADA moved the technology to a greater technology readiness level (TRL), whether the technology developed under the CRADA resulted in new intellectual property, and whether any new licensing agreements occurred. Using these findings, the Department can then measure the percentage of intellectual property that has become commercialized. As a result, the DHS Technology Transfer Office will determine the impact of any commercialization to the homeland security enterprise and the nation.

Mining for Inventions

In fiscal year 2011, DHS embarked upon an effort to find discoveries that were made in our laboratories and not captured. DHS started with evaluating one laboratory—the Transportation Security Laboratory—and the result was a 300 percent increase in invention disclosures for the agency. With the Leahy-Smith America Invents Act now in place, DHS will need to move aggressively to file patent applications and provisional patent applications to protect its intellectual property.

In fiscal years 2013 through 2015, personnel from the Technology Transfer Office, in concert with representatives from the Office of General Counsel Technology Programs, will spend six-month periods concentrating on one designated DHS laboratory to determine whether there are any inventions to disclose. The Technology Transfer Office will assist inventors with writing

disclosures to ensure that the Office of General Counsel and the Invention Evaluation Board has the information necessary to move forward.

- **Performance Goal:** Increase the number of invention disclosures throughout DHS.
- **How to Measure:** DHS will measure the increase of invention disclosures produced by those laboratories chosen for evaluation following the six-month assistance period. The number of invention disclosures will be recorded in the T2IPS and the increase should result in building a patent portfolio within DHS.

Licensing

Because the agency and its Technology Transfer Office are new, DHS is in the nascent stages of building its patent portfolio. As applications are filed, the Technology Transfer Office will work toward licensing technologies or entering into additional agreements to further the development of inventions. Starting in fiscal year 2013, DHS will enter into non-exclusive licensing agreements that require no outlay of funds from the licensing partner. However, under each such agreement, DHS will obtain a percentage of royalties. The royalties will provide funds to the inventor(s), the originating laboratory, and the Technology Transfer Office. The DHS Technology Transfer Office will work aggressively with the partnerships to find licensees for DHS technologies.

Because the DHS trademark portfolio is more developed, the DHS Technology Transfer Office will continue to assist the current licensing scheme. Still, the DHS Technology Transfer Office will seek to determine whether there are opportunities under which it would be appropriate for the trademark licensing to be revenue-generating.

- **Performance Goal:** Increase the number of royalty-bearing licenses at DHS.
- **How to Measure:** DHS will compare the data (*e.g.,* number of licensing agreements, number of income-bearing licenses, royalties received) between fiscal years and measure the percentage increase. This data will be recorded within the T2IPS. Once the numbers are assessed, target goals for increases in output will be established.

Outreach

The current state of the Technology Transfer website does not include a list of technologies available for licensing. In FY 2013, the website will be updated to include a list of technologies available for licensing to attract and promote the commercialization of DHS technologies. In addition, the Technology Transfer Office will work toward linking the data from the DHS website to provide a feed into the planned interagency-developed database for advertising federal agency technologies to the inquiring public. The Interagency Working Group for Technology Transfer is currently working to provide information on alternative solutions to the Office of the Chief Information Officer, as mentioned in the Presidential Memorandum, “Accelerating

Technology Transfer and Commercialization of Federal Research in Support of High-Growth Businesses," dated 28 October 2011.

The DHS Technology Transfer Office will participate in technology/innovation-based showcases that provide the forum for inventors to discuss their invention to potential licensees, manufacturers, and the financial community (for example, venture capital and seed fund firms).

To meet the President's challenge, the DHS Technology Transfer Office will need to develop additional Partnership Intermediary Agreements (PIAs) with various economic development organizations. The partnerships created under these agreements can provide tremendous opportunity for outreach throughout the nation. With these partnerships, the DHS Technology Transfer Office will have the ability to reach small businesses and leverage their skills, knowledge, and capabilities.

Partnership intermediaries allow the DHS Technology Transfer Office to proactively market DHS technologies and to communicate more effectively with the private sector. Many of these organizations can conduct market research to establish value of licensable technologies. Working with partnership intermediaries, the DHS Technology Transfer Office will have greater access to inform non-federal entities of the DHS Technology Transfer Program and the DHS mission to seek spin-in technologies. Spin-in technologies are technologies that are developed by non-federal entities and transferred to federal entities for their use. For cost avoidance and speed of execution, it is smart to spin-in technologies that are already developed and can help the agency meet its mission.

Currently, partnership intermediaries can be signed at the Secretary level, based on the law and the DHS Delegation to the Under Secretary for Science and Technology to Facilitate Technology Transfer. While the Technology Transfer Office has entered into several MOAs/MOUs to form partnerships with partnership intermediaries, it would be advantageous to the DHS Technology Transfer Program to have the responsibility delegated to the Science and Technology Directorate, since S&T has the responsibility for Technology Transfer for the Agency.

- **Performance Goal:** Reach a greater number of potential non-federal partners through various outreach methods.
- **How to Measure:** DHS will look at the yearly increase in inquiries for technologies and resulting agreements. Data on the number of partnerships garnered through each intermediary organization will be collected as well as all inquiries.

Mechanisms DHS Would Like the Authority to Use

Work for Others Agreements

- A Work for Others Agreement permits laboratories and facilities to conduct work for other federal agencies and non-federal entities, including state and local governments and universities, on a reimbursable basis. The Department of Energy currently utilizes Work for Others Agreements at its laboratories. DHS currently uses Work for Others Agreements in a limited manner receiving reimbursement from other federal agencies for its Government Owned – Contractor Operated (GOCO) laboratory, NBACC. Utilizing Work for Others Agreements for all laboratories and expanding beyond federal agencies by entering into Work for Others Agreements with non-federal entities would allow DHS to further support the foundation of providing our technological resources and capabilities to the nation.

User/Facility Agreements

- This agreement would allow DHS to make its unique equipment and facilities accessible to private industry. Also, referred to as a Commercial Test Agreement (CTA), it is a cost-effective solution for partners looking for unique research and test support capabilities. A User/Facility Agreement will allow DHS to make available the services of a laboratory for the testing materials, equipment, and systems to outside parties at a prescribed fee. These agreements are available for use with any individual, partnership, corporation, state or local government, or other government agency. Currently, DHS does not have the authority to enter into User/Facility Agreements.

Educational Partnerships

- Educational Partnerships are formal agreements between a "defense laboratory" and an educational institution to transfer and/or enhance technology applications, and to provide technology assistance for all levels of education, from pre-kindergarten through post-graduate. Under Educational Partnerships, equipment can be donated or loaned to an educational institute for any length of time.
- Department of Defense laboratories successfully use Educational Partnerships to transfer technology and knowledge to educational institutions in their vicinity. Priority is given to assisting historically black colleges, minority institutions, and institutions serving women. Working with educational institutions would be rewarding to DHS laboratories on many levels. DHS personnel would have a greater impact on developing the Science, Technology, Engineering, and Math (STEM) Programs for the future of our nation.

Other Needs of the DHS Technology Transfer Program

The DHS Technology Transfer Office is currently funded within S&T's base budget. Over the near-term, the Technology Transfer Office will continue to coordinate with other entities within S&T and across DHS to accomplish its mission.

Summary

The DHS Technology Transfer Office is still in its infancy. Over the next several years, it will continue to lay a proper foundation by entering into collaborative research and development agreements, creating the right partnerships, building a patent portfolio, and providing licensing opportunities to move DHS technologies into the marketplace. As each aspect of technology transfer grows, the DHS Technology Transfer Office will continue to move toward establishing an exemplary program, generating high-technology outputs and commercializing cutting-edge technology.

Appendix A

- Presidential Memo, "Accelerating Technology Transfer and Commercialization of Federal Research in Support of High-Growth Business," October 28, 2011.

Appendix B

- DHS Delegation 10002, "Delegation to the Under Secretary for Science and Technology to Facilitate Technology Transfer."