Private Sector Outreach Statistics

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Discussion Guide

- Overview of Private Sector Outreach Activities
- Process of Gathering Data/Information
- Breakdown of Organization Types
- Statistical Information Review
- Summary
Commercialization Office: Major Activities

Requirements Development Initiative

- Requirements Development Book(s)
- Operational Requirements Document Template
- Training for end users and engineers

Commercialization Process

- "Hybrid" Commercialization Model
- Product Realization Chart
- Commercialization Framework and "Mindset"

SECURE Program

- Concept of Operations
- Website Development
- Internal processes developed and socialized
- Requirements and Conservative Potential Market Available Estimates Communicated

Private Sector Outreach

- Invited Speeches
- Meetings with business executives
- Numerous articles written and published regarding observations and programs in practice.
- Repository of currently available products, services and/or technologies in the private sector aligned to Capstone IPT Capability Gaps
Roll Out of Initiatives

Commercialization Office

- Requirements Development
  - Phase I: Develop
  - Phase II: Test
  - Phase III: Scale

- Commercialization Process
  - Phase I: Develop
  - Phase II: Test
  - Phase III: Scale

- SECURE Program
  - Phase I: Develop
  - Phase II: Pilot
  - Phase III: Scale

- Private Sector Outreach
  - Phase I: Develop
  - Phase II: Test
  - Phase III: Scale

• Continued Feedback from Users (DHS, First Responders, Private Sector)
• Test/Pilot & Refine (Iterative Process)
• Work “Bottom-Up” and “Top-Down” at DHS, FR Communities and PS
Integrated Marketing Strategy

Requirements Development
- Articles/Books
- www.DHS.gov
- DHS Online intranet
- Invited Briefs
- Trade Shows / Conferences

Commercialization Process
- Articles/Books
- www.DHS.gov
- DHS Online intranet
- Invited Briefs
- Trade Shows / Conferences

SECURE Program
- Articles/Books
- www.DHS.gov
- DHS Online intranet
- Invited Briefs
- Trade Shows / Conferences
- Television Appearances

Private Sector Outreach
- Articles
- www.DHS.gov
- Invited Briefs
- Trade Shows / Conferences
- Full Response Package
- Statistical Analysis (On-going)

• Continual Feedback from Private Sector (including VCs and Angel Investors)
Commercialization Process

**PHASE I**
- Assess Capability Gap
- Formulate EHCs
- Capstone IPT

**PHASE II**
- Develop Operational Requirements & CONOPS
- Perform Technology/System Feasibility Study
- Sponsor and S&T

**PHASE III**
- Technology Scan/Market Survey
- Outreach Program Activities
- Sponsor and S&T

**PHASE IV**
- Assess & Choose Strategic Private Sector Partners
- Technology Transfer/Grants (if required)
- Responses from Private Industry
- Executed Agreement with Private Sector and DHS

**PHASE V**
- New COTS product marketed by Private Sector with DHS support:
  - SAFETY Act
  - Standards
  - Public Relations
  - Marketing Communications

Legend:
- EHC – Enabling Homeland Capability
- CG – Capability Gap
- ORD – Operational Requirements Document
- CONOPS – Concept of Operations
- PAM – Potential Available Market
- COTS – Commercial Off The Shelf

“Commercialization” – The process of developing markets and producing and delivering products or services for sale.

Source: Senior Executive Brief to Secretary Chertoff, Deputy Secretary Schneider and Leaders of G-7
Contact with the Private Sector

Initial Contact with Private Sector*

Private Sector requests more information

“Full Response Package” sent to requestors, usually within same day

Company Overview and Marketing Materials Received and communicated through S&T via Shared Drive

Invited Speeches/Presentations
Congressional Referrals
Conference Attendance
Seminar Hosting
Published Articles
Word of Mouth
DHS Website

• “Opportunities for the Private Sector”
• Developing Operational Requirements
• “High Priority Technology Needs”
• SECURE Program CONOPS
• FutureTECH Program CONOPS
• Example Company Overview Document
• Operational Requirements Document Template

*Private Sector includes Venture Capitalist and Angel Investor Communities
Private Sector Outreach and Response Rate

37,500 Organizations/Entities/etc. have been exposed to DHS Commercialization outreach efforts

7,500 Full Response Packages Sent to Private Sector and non-DHS entities

1,500 Full Response Packages Reviewed by Private Sector and non-DHS entities

300 Completed Company Profiles Received by Commercialization Office

Outreach efforts to inform the public on “How to do Business with DHS” is receiving positive feedback from the private sector and media.

*Please note that these numbers do not include millions of people who are made aware of Commercialization activities through various forms of media such as television, print media, websites, etc.
### “Working with DHS”: Benefits of the SECURE Program

<table>
<thead>
<tr>
<th>Taxpayers</th>
<th>Private Sector</th>
<th>Public Sector</th>
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<tbody>
<tr>
<td>1. Citizens are better protected by DHS personnel using mission critical products</td>
<td>1. Save significant time and money on market and business development activities</td>
<td>1. Improved understanding and communication of needs</td>
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<tr>
<td>2. Tax savings realized through Private Sector investment in DHS</td>
<td>2. Firms can genuinely contribute to the security of the Nation</td>
<td>2. Cost-effective and rapid product development process saves resources</td>
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<td>3. Positive economic growth for American economy</td>
<td>3. Successful products share in the “imprimatur of DHS”; providing assurance that products really work</td>
<td>3. Monies can be allocated to perform greater number of essential tasks</td>
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<td>4. Possible product “spin-offs” can aid other commercial markets</td>
<td>4. Significant business opportunities with sizeable DHS and DHS ancillary markets</td>
<td>4. End users receive products aligned to specific needs</td>
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<tr>
<td>5. Customers ultimately benefit from COTS produced within the Free Market System – more cost effective and efficient product development</td>
<td>5. Commercialization opportunities for small, medium and large business</td>
<td>5. End users can make informed purchasing decisions with tight budgets</td>
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Private Sector Company Database

• Professional, service-oriented outreach to Private Sector has resulted in positive feedback. Response rate varies between 20-30%*.

• Company overviews provide brief outlines of organization’s products, technologies and/or services aligned to DHS capability gaps/needs

• Database of company overview documents is accessible by DHS S&T personnel on S&T shared drive

• Periodically updated overview briefs are available to entire Department on DHS Online intranet

* 20-30% is response rate range of organizations that express interest in Commercialization programs and return detailed company overview package to DHS-S&T Commercialization Office
Overview of Statistical Information

• There are well over 300 organizations (with more than 2,000 technologies/products/services) aligned to individual capability gaps generated in Capstone IPT process

• Commercialization Office works with assortment of small, medium and large companies (54% of the company overviews have been submitted by small companies)

• Aligned company information and “core competencies” versus needs of given DHS Operating Component; company information was aligned/distributed evenly across 7 DHS Operating Components

• Aligned products/technologies/services of given company portfolio versus individual Capstone IPT capability gap(s); company information was aligned closely to Information Sharing (27%), Border Security (12%) and Cyber Security (10%) Capstone IPTs
Overview of Statistical Information: Comparison to November 2008

• Increase of over 50 organizations (additional 600 technologies/products/services) aligned to individual capability gaps generated in Capstone IPT process; 43% increase in number of potential technologies/products/services

• Notable percentage increases in products/technologies/services of given company portfolio aligned to individual Capstone IPT capability gap(s) - Interoperability (24%), Incident Management (11%), Transportation Security (10%), Border Security (9%) and Information Sharing (8%) Capstone IPTs
Commercialization Office
Company Overviews Received
Sorted by Company Size

Count of Company Size

- Large
  - $>50M Revenue
- Medium
  - $20M - $50M Revenue
- Small
  - <$20M Revenue
Company Overviews Possessing Potential Relevance to DHS Operating Components

Note: When a product is aligned to multiple needs within a given Capstone IPT or across multiple Capstone IPTs, or when a company shows potential relevance to multiple DHS Operating Components that company/product will be counted multiple times. This follows for all statistics presented in this brief.
People Screening (PS)

1. Systematic collection and analysis of information related to understanding terrorist group intent to engage in violence

2. Non-invasive monitoring: Identifying and tracking unknown or potential threats from individuals at key checkpoints. Real-time detection of deception or hostile intent through integrated system of human and machine methods

3.Capability in real-time for positive verification of individual's identity utilizing multiple biometrics

4. Capability for secure, non-contact electronic credentials; contactless readers or remote interrogation technologies for electronic credentials

5. Mobile biometrics screening capabilities, to include hand-held, wireless, and secure devices

6. High-speed, high-fidelity ten-print capture capability

7. Rapid DNA testing to verify family relationships during interviews for the disposition of benefits

8. Remote, standoff biometrics detection for identifying individuals at a distance
Cyber Security (CyS)

1. Secure internet protocols including standard security methods
2. Improved capability to model the efforts of cyber attacks and understanding of internet topography
3. Comprehensive next-generation network models
4. Composable and scalable secure systems
5. Technologies and standards for managing identities, rights, and authorities used in an organization’s networks
6. Information system insider threat detection models and mitigation technologies
7. Analytical techniques for security across the IT system engineering life-cycle
8. Process Control Systems (PCS) security
Maritime Security (MS)

1. Wide-area surveillance from the coast to beyond the horizon; port and inland waterways region – detect, ID, and track
2. Data fusion and automated tools for command center operations
3. Vessel compliance through less-lethal compliance methods
4. Enhanced capability to continuously track contraband on ships or containers
5. Improved ballistic personal protective equipment for officer safety
6. Improved WMD detection equipment for officer safety; improved screening capability for WMD for maritime security checkpoints
7. Ability for law-enforcement personnel to detect and identify narcotics, chemical warfare agents, toxic industrial chemicals, explosives, and contraband materials
### Interoperability (INT)

1. Development and evaluation of Internet Protocol (IP) enabled backbones
2. Standardize, pilot, and evaluate emergent wireless broadband data technologies and applications
3. Acceleration of development and testing of P25 IP-based interfaces
4. Develop message interface standards that enable emergency-information sharing and data exchange
5. Transition of Land Mobile Radios communication architectures to cellular based architectures
6. Evaluation of access technologies
7. Development of the complementary test procedures
8. Provide seamless access to voice and data networks, using a unified communications device
9. Perform interoperability compliance testing on emergency response communications devices and systems
Counter – Improvised Explosive Devices (C-IED)

1. Capability to detect domestic use vehicle borne improvised explosive devices (VBIED)
2. Capability to assess, render safe, and neutralize explosive threats.
3. Capability to detect person-borne IEDs from a stand-off distance
4. Capability to track origin of explosives or bombs and mark explosive material to detect IEDs
5. Protective measures to reduce damage to infrastructure, urban structures, and persons from IRD attacks
6. Tools for blast-mitigation and rapid threat response, assess and stabilize damaged structures
7. Capability to predict the threat of an IED attack, identify person-borne IED threats at checkpoints
Cargo Security (CS)

1. Enhanced screening and examination by non-intrusive inspection
2. Increased information fusion, anomaly detection, Automatic Target Recognition capability
3. Detect and identify WMD materials and contraband
4. Capability to screen 100% of air cargo
5. Reliable container seal security/detect intrusion devices
6. Track domestic high-threat cargo
7. Harden air cargo conveyances and containers
8. Positive ID of cargo & detection of intrusion or unauthorized access
### Chem/Bio Defense (CBD)

1. Tools to detect and mitigate animal disease breakouts
2. Policy net assessments to provide fresh perspectives on fundamental elements of the national biodefense strategy
3. Improved tools for integrated CBRN Risk Assessment
4. Incident characterization capability for response & restoration
5. Improved Chem-Bio Forensic Analysis capability
6. National-scale detection architectures and strategies to address outdoor, indoor, and critical infrastructure
7. Consequence assessments of attacks on chemical facilities and Chem-Bio attacks on other critical infrastructure
8. Integrated CBRNE Sensor Reporting capability
9. Handheld rapid biological and chemical detection systems
10. Detection paradigms and systems for improved, emerging, and novel biological threats
11. Mechanisms to independently evaluate and validate commercially developed assays for the first-responder community to be public health actionable
12. Tools for sampling, rapidly detecting, and identifying in the field illegal products, including high-consequence pathogens and toxins that threaten agriculture and the food industry
Transportation Security (TS)

1. Technologies to screen people for explosives and weapons at fixed aviation and mass-transit checkpoints

2. System Solutions for explosives detection in checked and carried baggage.

3. Capability to detect homemade or novel explosives

4. Optimized canine explosive detection capability

5. Technologies for screening air cargo for explosives and explosive devices
Incident Management (IM)

1. Integrated Modeling, Mapping, and Simulation capability
2. Personnel Monitoring (Emergency Responder 3-D Locator System) capability
3. Personnel Monitoring (Physiological Monitoring of Firefighters) capability
4. Incident Management Enterprise System
5. Logistics management tool
1. Analytical tools to qualify interdependencies and cascading consequences as disruptions occur across critical infrastructure sectors

2. Effective and affordable blast analysis and protection for critical infrastructure; improved understanding of blast failure mechanisms and protection measures for the most vital CI/KR

3. Advanced, automated and affordable monitoring and surveillance technologies

4. Rapid mitigation and recovery technologies to quickly reduce the effect of natural and manmade disruptions and cascading effects

5. Critical utility components that are affordable, highly transportable, and provide robust solutions during manmade and natural disruptions
Border Security (BS)

1. Improved ballistic protection via personal protective equipment

2. Improve detection, tracking and identification of all threats along the terrestrial and maritime border

3. Ability to access ICE database in which voice information is entered; provide analytical, reporting, and automated case deconfliction; classify, identify voice samples

4. Non-lethal compliance measures for vehicles, vessels, or aircraft allowing for safe interdiction by law enforcement personnel

5. Non-destructive tools that allow for the inspection of hidden or closed compartments to find contraband or security threats

6. Improved analysis and decision-making tools that will ensure the development/implementation of border security initiatives

7. Ability to non-intrusively determine the intent of subjects during questioning

8. Ability for Law Enforcement personnel to quickly identify the origin of gunfire and classify the type of weapon fired

9. Ability for Law Enforcement officers to assure compliance of lawful orders using non-lethal means
1. Data fusion from law enforcement, intelligence partners, and other sensors to support the Common Operation Picture (COP)

2. Improved real-time data sharing of law enforcement information

3. Management of user identities, rights, and authorities

4. Distribution of Intelligence Products

5. Information sharing within/across sectors on terrorists threats

6. Improvement of situational awareness and decision support – automated, dynamic, real-time data processing and visualization capability.

7. Analytic capabilities for structured, unstructured, and streaming data

8. Situational awareness between US Coast Guard and partners

9. Sensor fusion between Law Enforcement and Intelligence partners

10. Predictive analytics – correlate data and information for recognizing and potentially predicting terrorist attack patterns

11. Protection of U.S. citizen personal data

12. Improved cross-agency reporting of suspicious data
Summary and Next Steps

• There are well over 300 organizations (with more than 2,000 products/technologies/services) aligned to individual capability gaps generated in Capstone IPT process
• Also provided information on organization’s “core competencies” versus needs of given DHS Operating Component
• Drilled down into data to provide in-depth analysis of each product/technology/service of given company/organization portfolio versus individual Capstone IPT generated capability gap(s)
• Work even closer with Transition Managers to validate alignment to DHS capability gaps
• Developing strategies to reach out to under-represented/under-utilized types of businesses to aid Department
• Continue to socialize and publicize awareness of this valuable data throughout Department
• Refine and/or customize reports for Operating Components, if required
• Designing process to automate and capture Private Sector statistics and company information