

Capstone IPTs:

*“Getting Advanced Technology Capabilities
to the Frontline of DHS!”*



Robert Hooks

Director, Office of Transition

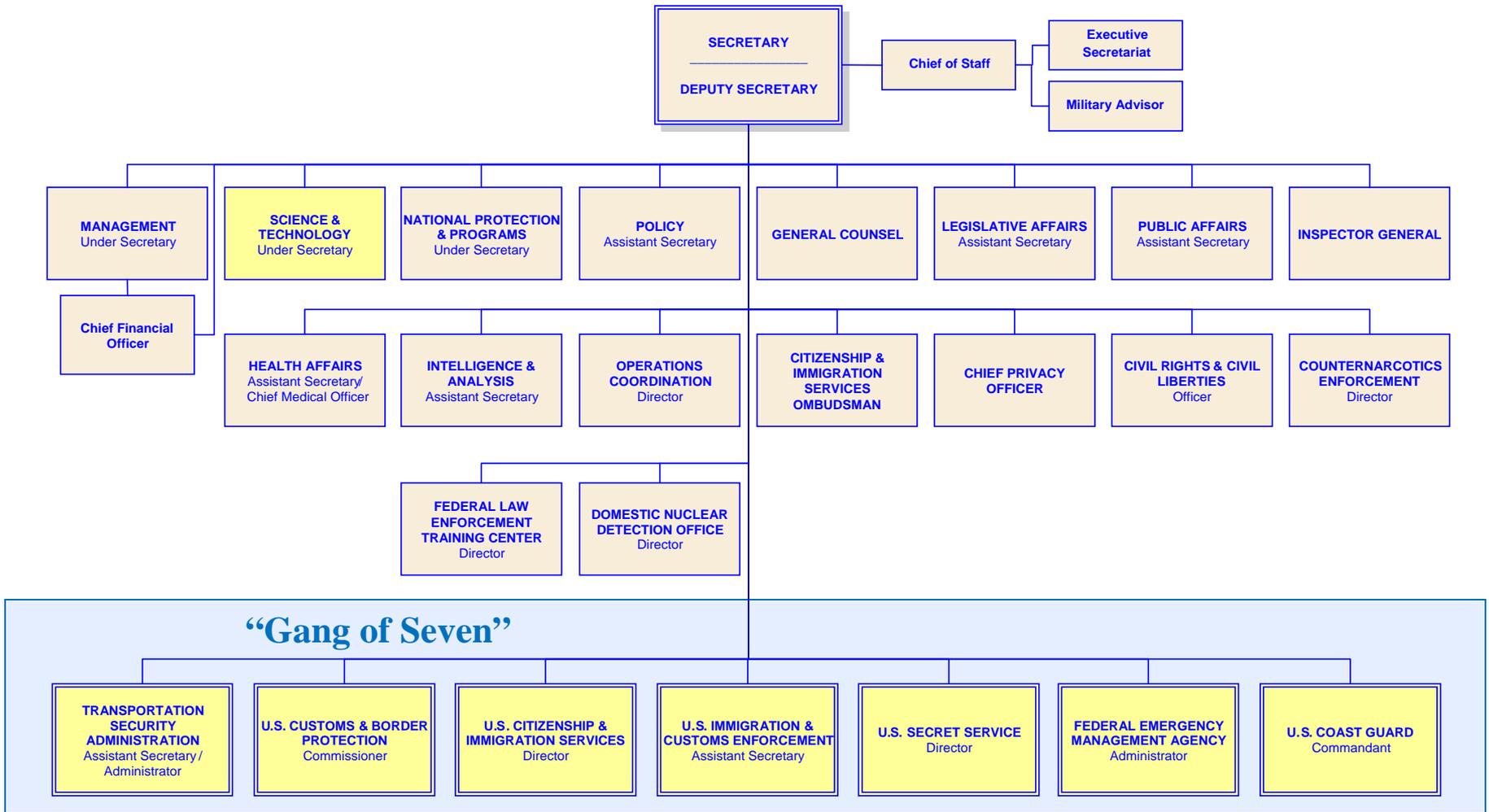
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**Homeland
Security**

U.S. Department of Homeland Security



Homeland Security

S&T Goals

Consistent with the Homeland Security Act of 2002

Accelerate delivery of enhanced technological capabilities to meet requirements and fill capability gaps to support DHS Agencies in accomplishing their mission

Establish a lean and agile GS-manned, world-class S&T management team to deliver the technological advantage necessary to ensure DHS Agency mission success and prevent technology surprise

Provide leadership, research and educational opportunities and resources to develop the necessary intellectual basis to enable a national S&T workforce to secure the homeland



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DHS S&T Investment Portfolio

Balance of Risk, Cost, Impact, and Time to Delivery

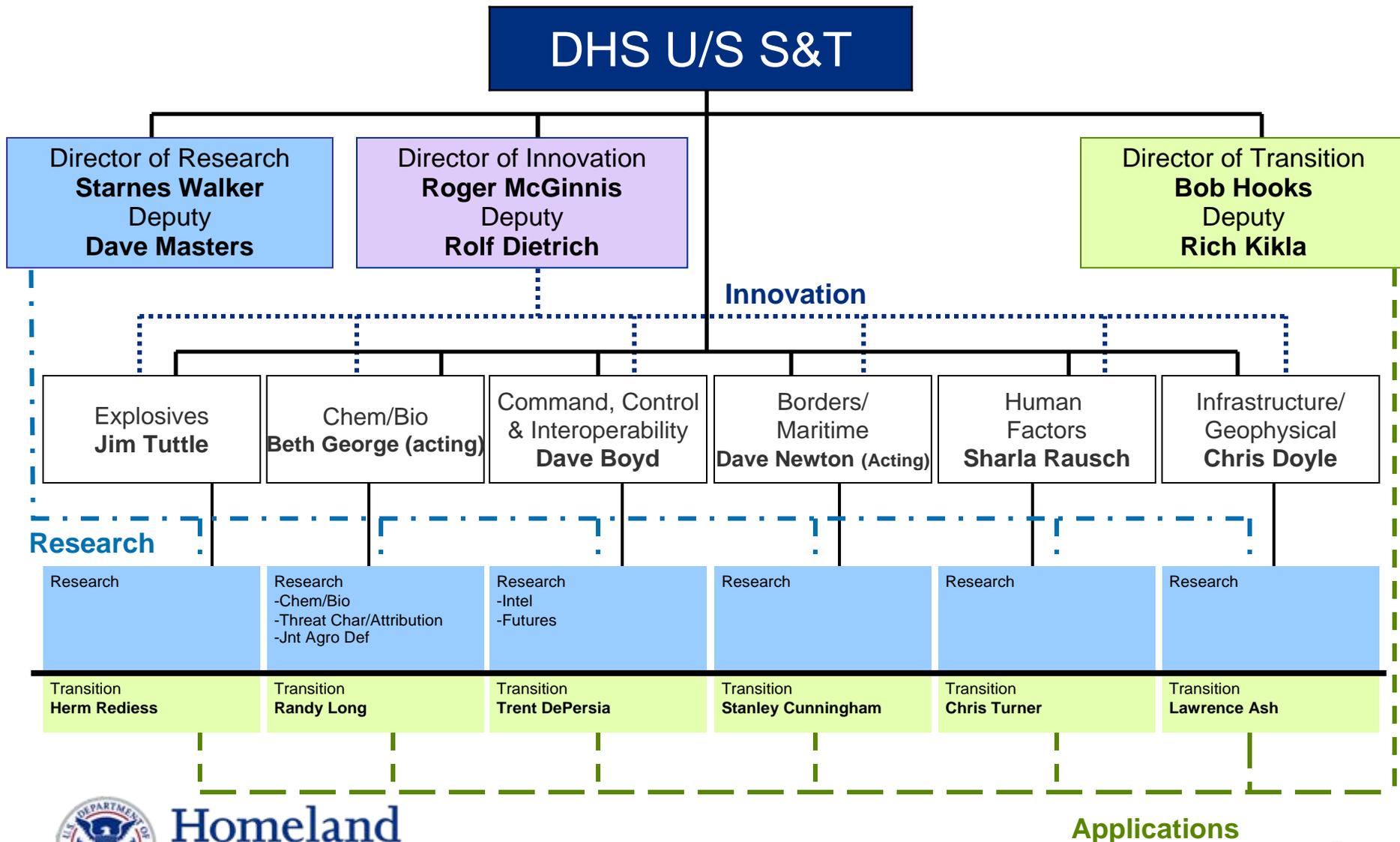
Product Transition (0-3 yrs) <ul style="list-style-type: none">• Focused on delivering near-term products/enhancements to acquisition• Customer IPT controlled• Cost, schedule, capability metrics	Innovative Capabilities (1-5 yrs) <ul style="list-style-type: none">• High-risk/High payoff• “Game changer/Leap ahead”• Prototype, Test and Deploy• HSARPA
Basic Research (>8 yrs) <ul style="list-style-type: none">• Enables future paradigm changes• University fundamental research• Gov’t lab discovery and invention	Other (0-8+ yrs) <ul style="list-style-type: none">• Test & Evaluation and Standards• Laboratory Operations & Construction• Required by Administration (HSPDs)• Congressional direction/law

Customer Focused, Output Oriented

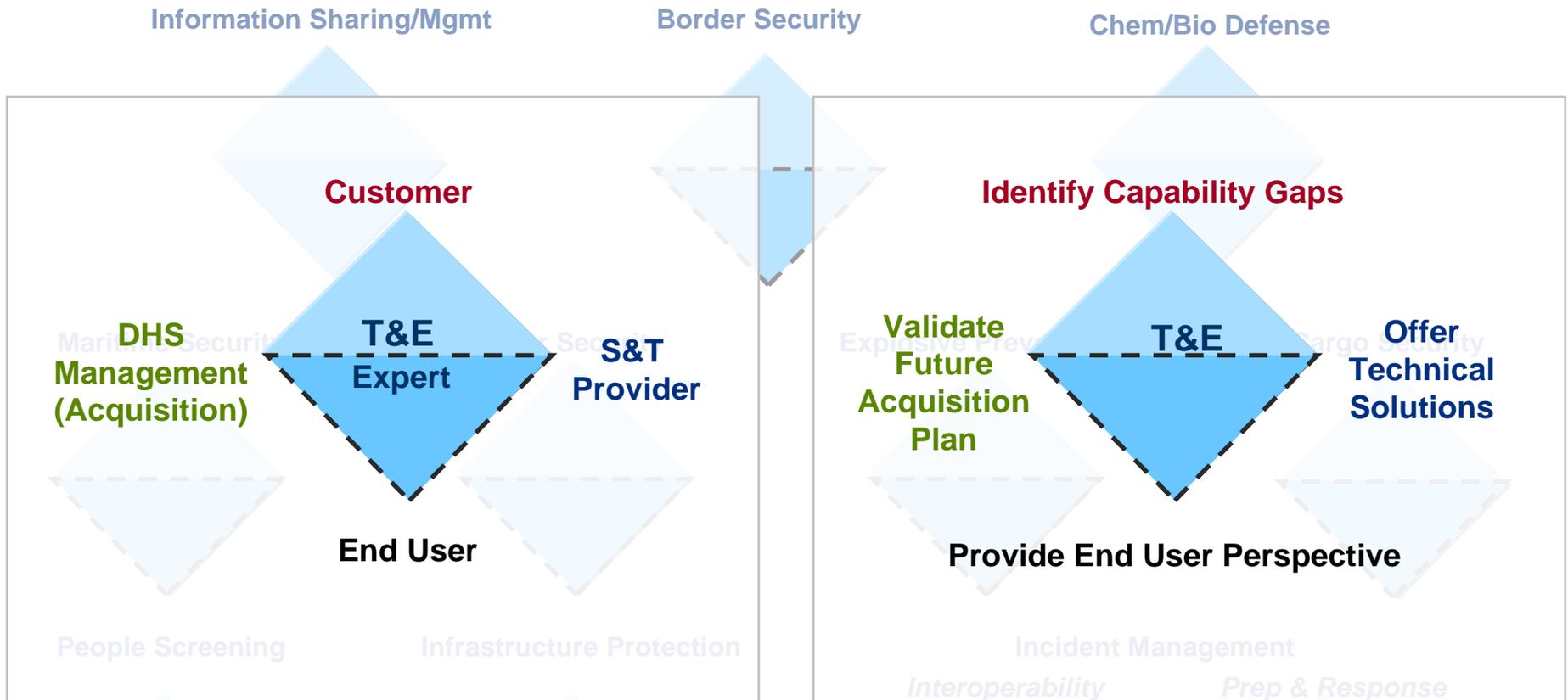


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S&T Organization



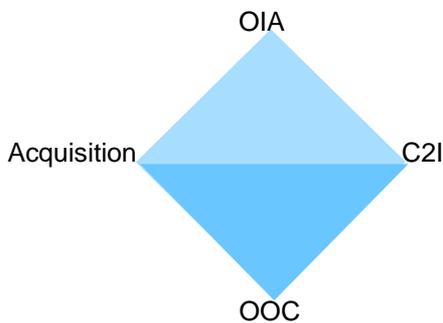
S&T Transition IPT Members & Function



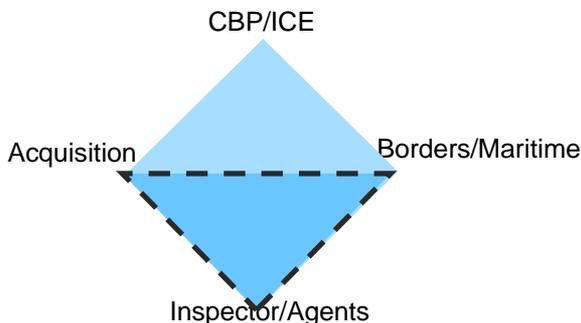
DHS Requirements/Capability Capstone IPTs

DHS S&T Product – “Enabling Homeland Capabilities” (EHCs)

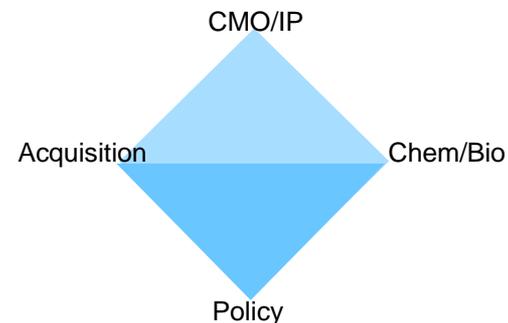
Information Sharing/Mgmt



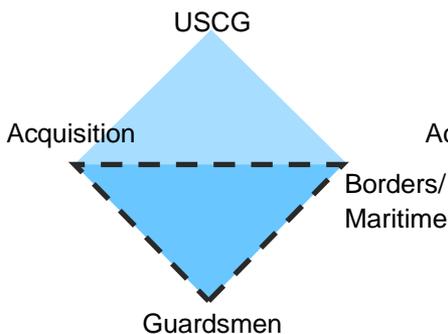
Border Security



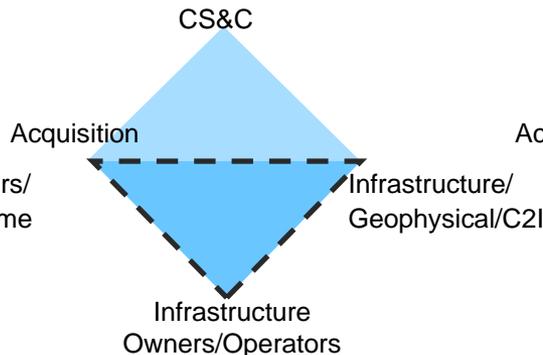
Chem/Bio Defense



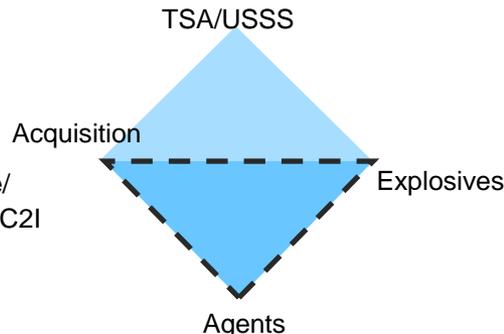
Maritime Security



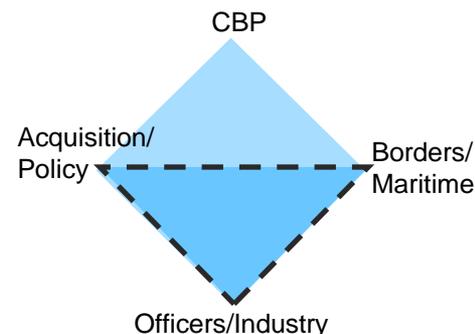
Cyber Security



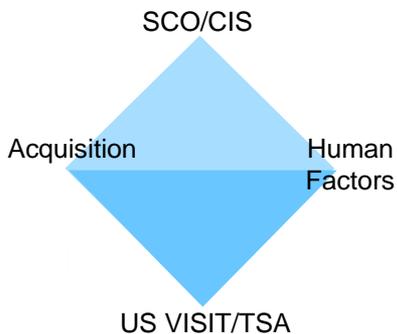
Explosive Prevention



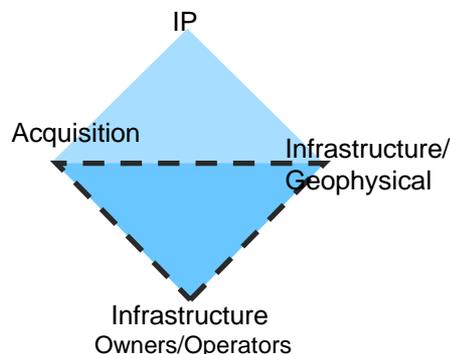
Cargo Security



People Screening

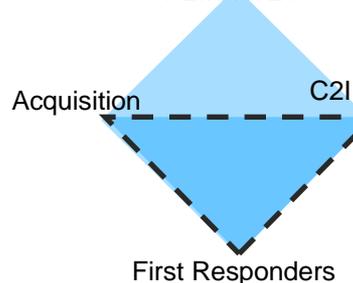


Infrastructure Protection

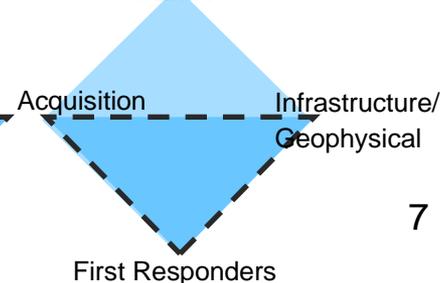


Incident Management

Interoperability FEMA/OEC



Prep & Response FEMA

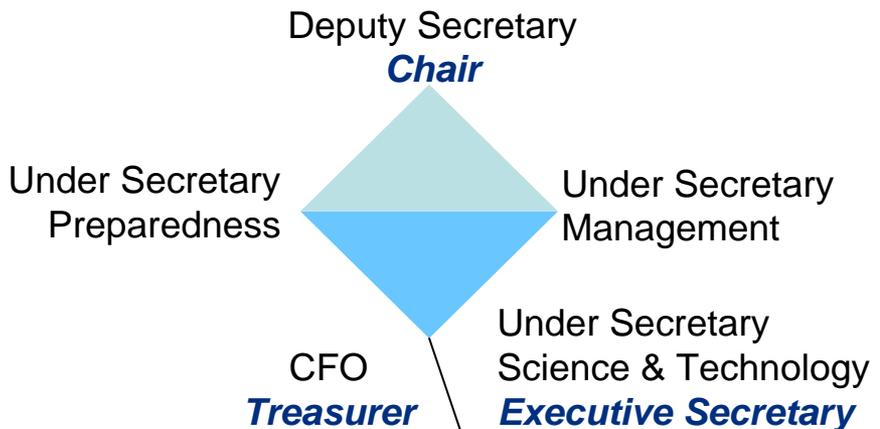


IPT End Product

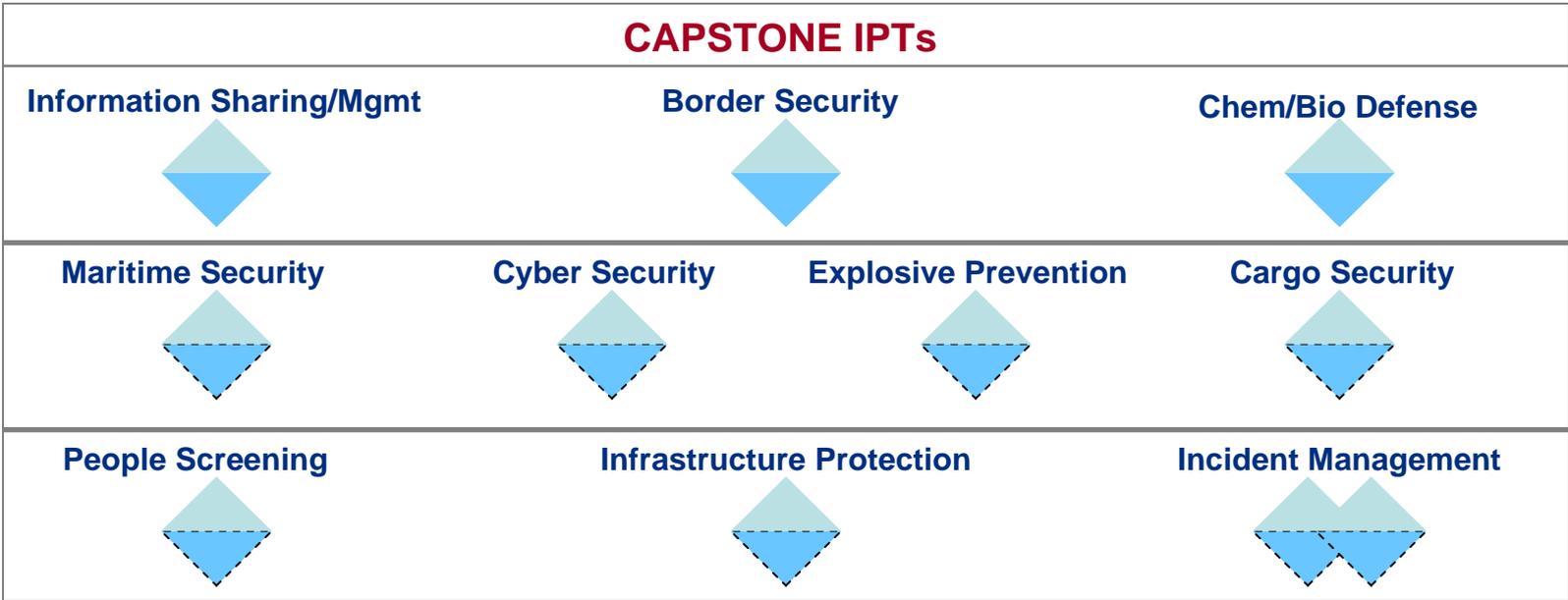
Customer Priority	Customer Provided Capability Gaps (Customer Mission)	S&T Enabling Homeland Capabilities (S&T Directorate)	S&T Division	Customer Acquisition Programs	FY of Funding
High					
Medium					



Proposed “Technology Oversight Group”



- Objective**
- S&T Transition Program Oversight
 - Investment Balance across IPTs
 - Department Level Coordination

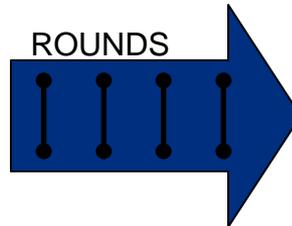


Accomplishments from the Capstone IPTs

- Customer Focus and influence on S&T Product Transition by Having the Customer Lead the IPT
- Departmental Solutions in the Core Functional Areas
- Transparent Process for Identifying Technology Solutions to Capability

RESULT: Defendable Prioritized S&T Investments in Product Transition Efforts

Customer Priority	Customer Provided Capability Gaps (Customer Mission)	S&T Enabling Homeland Capabilities (S&T Directorate)	S&T Division	Customer Acquisition Programs	FY of Funding
High	BLANK SLATE				
Medium					



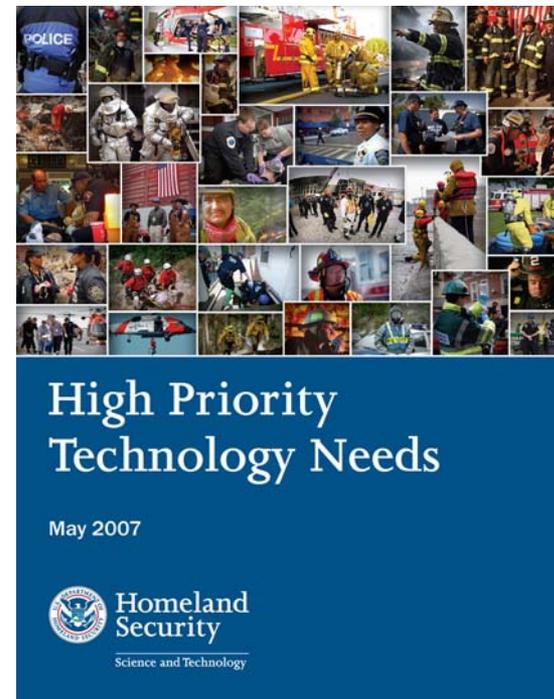
Gap ID	Capability Gap Summary	Enabling Homeland Capability	FY09	FY10	FY11	FY12	FY13	Project TOTAL
IM-028	Personnel Monitoring (Physiological Monitoring of Firefighters)	NEW START, advanced First Responder Physiological Monitoring System	2,000	3,000	3,000	3,000	3,000	14,000
IM-012	Incident Management Enterprise System	Innovation, Incident Management Enterprise System - UICDS	2,000					2,000
IM-012	Incident Management Enterprise System	Innovation, Incident Management Enterprise System - TELL (Simulation Based Training and Modeling)	1,500	1,000				2,500
IM-012	Incident Management Enterprise System	NEW START, advanced Incident Management Enterprise System	14,000	4,000	4,000	4,400	4,000	19,900
TOTAL			\$9,000	\$8,000	\$7,000	\$7,400	\$7,000	\$38,400
IM-009	Incident Management Enterprise System	Incident Logistics and Resource Tracking System	3,500	4,500	4,500	2,500	2,500	17,500
IM-028	Personnel Monitoring (Physiological Monitoring of Firefighters)	Innovation, Personal Alert Safety Systems	1,000	2,000	2,000	1,000		6,000
IM-018	Personnel Tracking	Emergency Team Personnel Tracking System	2,000	3,000	2,000	2,000		9,000

VITAL INFO COLLECTED



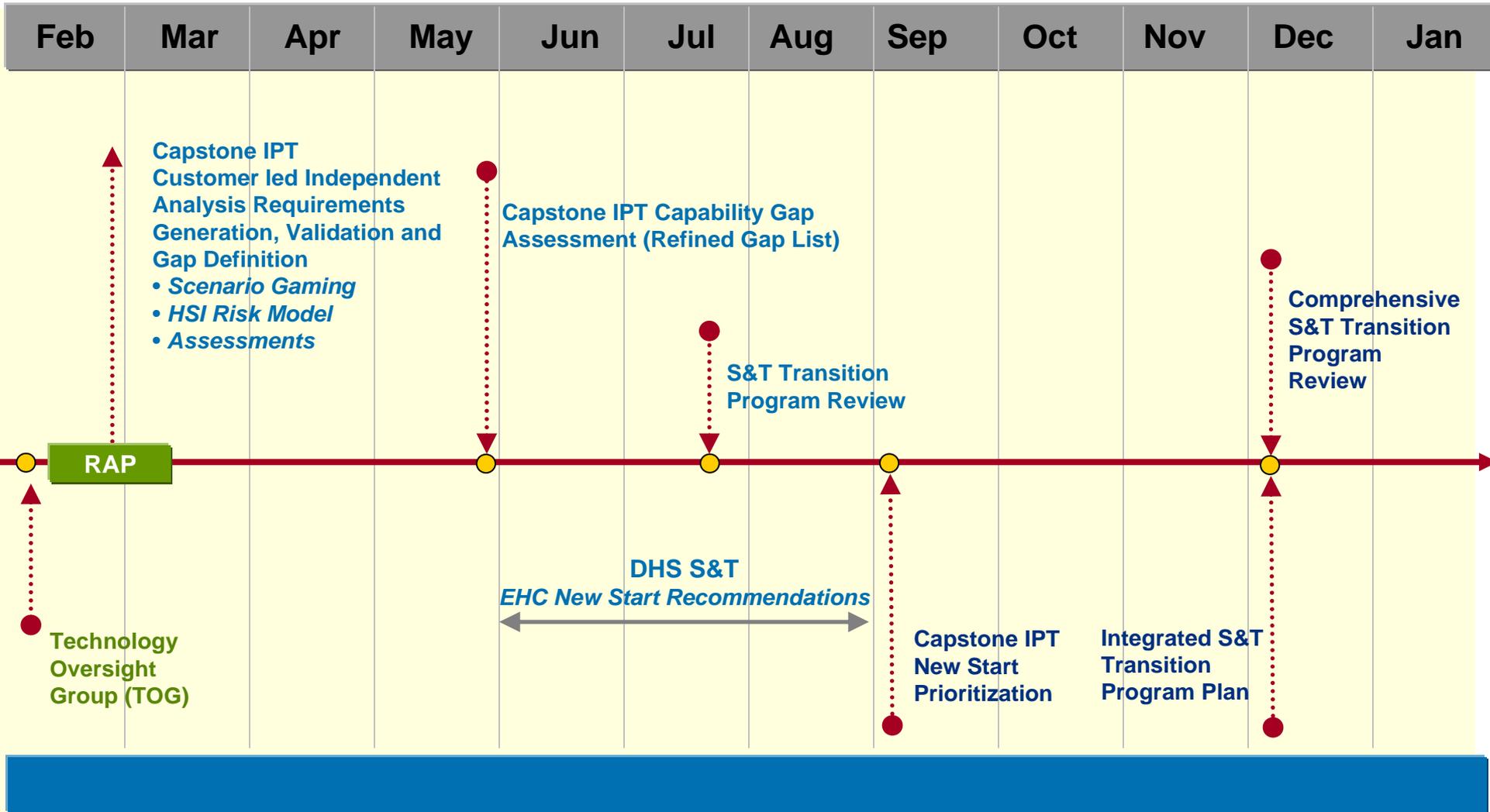
High Priority Technology Needs

- 11 Capstone IPTs have identified 77 High Priority Technology Needs for DHS components and their customers
- Identified in new brochure and posted at www.hsarpabaa.com
- Baseline established for conducting an iterative, dynamic IPT process on an annual cycle aligned with DHS funding and acquisition processes



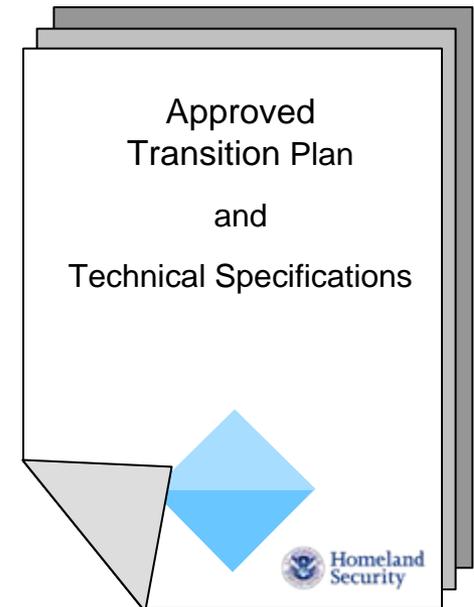
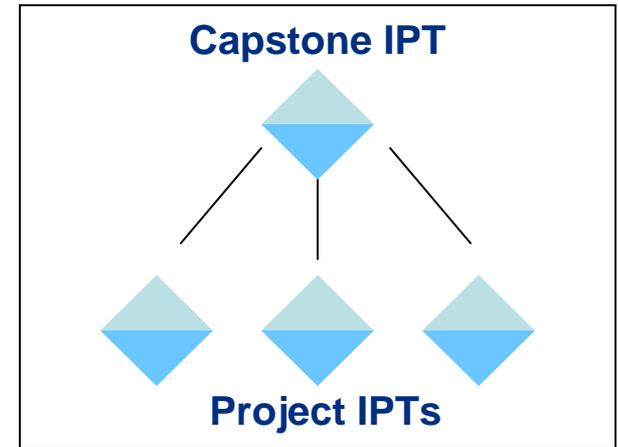
Customer Focused...Output Oriented

S&T Capstone IPT Cycle



Established Project IPTs

- Refine Requirements, Clarify the Capability Gap
- Detail the Proposed Technology Solutions
- Clarify the Deliverable and Transition Plan
- Prioritize and Identify Lead Customer/End-User
- Develop Technology Transition Agreements (TTAs) specifying customer requirements and technical specifications



44 Project-IPTs

Information Sharing/Mgmt

- Information Fusion and Visualization to Support the Common Operating Picture (COP)
- Network Identity Management
- Cross-Agency Information Sharing

Border Security

- Border Officer Tools and Safety
- Sensor and Data Fusion
- Border / Maritime Domain Awareness Technologies

Chem/Bio Defense

- Agrodefense
- Biodefense
- Chemical Defense

Maritime Security

- Border Officer Tools and Safety
- Sensor and Data Fusion
- Border / Maritime Domain Awareness Technologies

Cyber Security

- Research Tools & Technology
- Information Infrastructure Protection
- Next Generation Technologies

Explosive Prevention

- Standoff Detection
- Homemade Explosives
- Checked Baggage
- Check Point
- Response
- Canine explosive detection
- Blast Mitigation
- Standoff Projectile Mitigation

Cargo Security

- Container Security
- Cargo Security
- Cargo Inspection

People Screening

- Biometrics
- Credentialing
- Hostile Intent
- Group Violent Intent Modeling

Infrastructure Protection

- Analysis & Decision Support Systems
- Advanced Infrastructure Architecture & Systems Design
- Detection & Sensor Systems
- Response, Recovery and Reconstitution

Incident Management

Interoperability

- Advanced communication
- Digital voice communication
- Seamless data exchange

Prep & Response

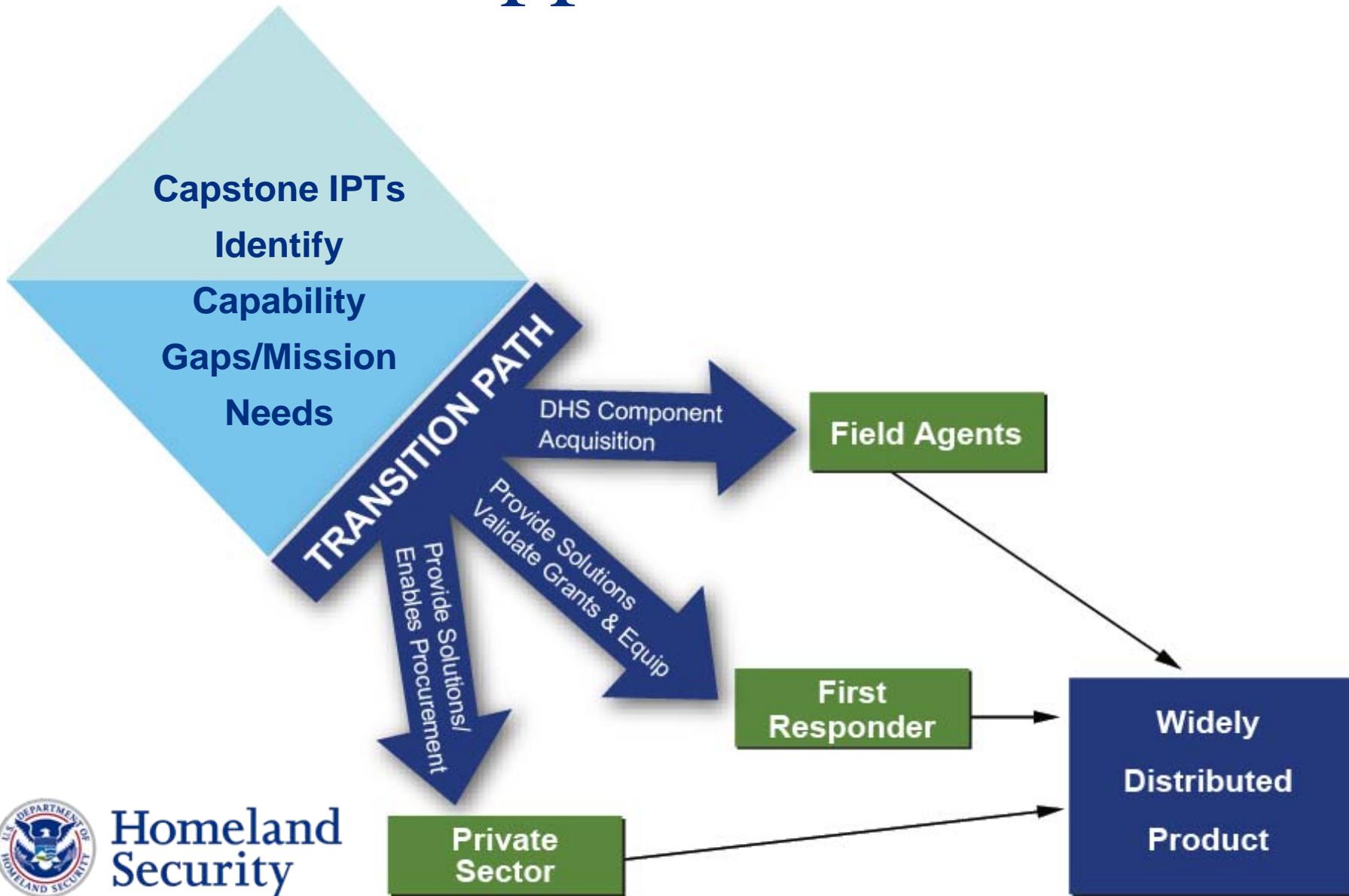
- First Responder Equipment
- Common Operating Picture & Situational Awareness
- Simulation-Based Incident Planning & Response

The Capstone Execution Arm

- Detailed Customer Schedule and Requirements
- Detailed S&T Performance Parameters
- Coordinated Programmatic Alignment
- Codified Technology Transition Agreements

Technology on Schedule with Requisite Performance

Transition Approaches



Technology Insertion

S&T Program Management

- Technical Requirements Document
- Technology Development Strategy
- Technical Data Package

Technology Transition Agreement



Key Performance Parameters
Interface Requirements
Deliverables
Schedule

Acquisition/End User Program

- Mission Needs Statement
- Operational Requirements Document
- Acquisition Program Baseline
- Business Case (Exhibit 300)
- Technical Data Package

**TTA Brings Discipline to
S&T Investment and
Transition Process**



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The Technology Transition Agreements (TTAs) are a Good Faith Agreement

The What...

- Requirement/Acquisition Program Identified
- Life Cycle Cost Estimated
- Technical Maturity Defined
- Technology Development Strategy Defined
- Exit Criteria Defined
- S&T Funding Identified
- Customer Funding Identified

DRAFT TEMPLATE

 **Homeland Security**

[Name of Technology Product for the Name of Acquisition Program]

A Technology Transition Agreement between

**Project Manager
Name of S&T Project
S&T Directorate**

...and The Why

- No surprises on delivery
- Customer focus that meets schedule & performance requirements
- Understanding affordability before investing
- Technology risk analysis
- Optimizes technology approach
- What customer gets in detail
- S&T commitment
- Customer commitment

b. Technology Development Strategy
Outline planned approach. Subdate:
1) Effort required beyond those currently underway.
2) Integration plans if multiple projects are planned.

c. Exit Criteria
Identify quantifiable criteria for technology product life cycle:
1) Define the complete performance, physical
2) Conditions under which to deliver to acquisition
3) Current performance of
4) Minimum acceptable performance
5) Desired final goal/condition
6) End state of the transition program office.

Attributable Parameters

ID	Task Name
1	Task 1
2	Task 2
3	Task 3
4	Task 4
5	Task 5
6	Task 6

d. Program Plan
Show major activities that will include milestones, subdate acquisition program.

IV. Signatures

S&T Project Manager* (print and sign)

S&T Division Head** (print and sign)

Sponsor's Acquisition Program Manager*** (print and sign)

Sponsor's Representative**** (print and sign)

No "Use" Commitment by Customer →
No Investment of Precious S&T \$'s in That Area!



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Information from S&T project manager
** Information from S&T project manager
*** Information from sponsor's acquisition program manager
**** Information from sponsor's representative

* Information from S&T project manager	6
** Information from S&T project manager	
*** Information from sponsor's acquisition program manager	
**** Information from sponsor's representative	



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