

DHS Science & Technology Directorate Capstone IPTs



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Science and Technology

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DHS S&T Investment Portfolio

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

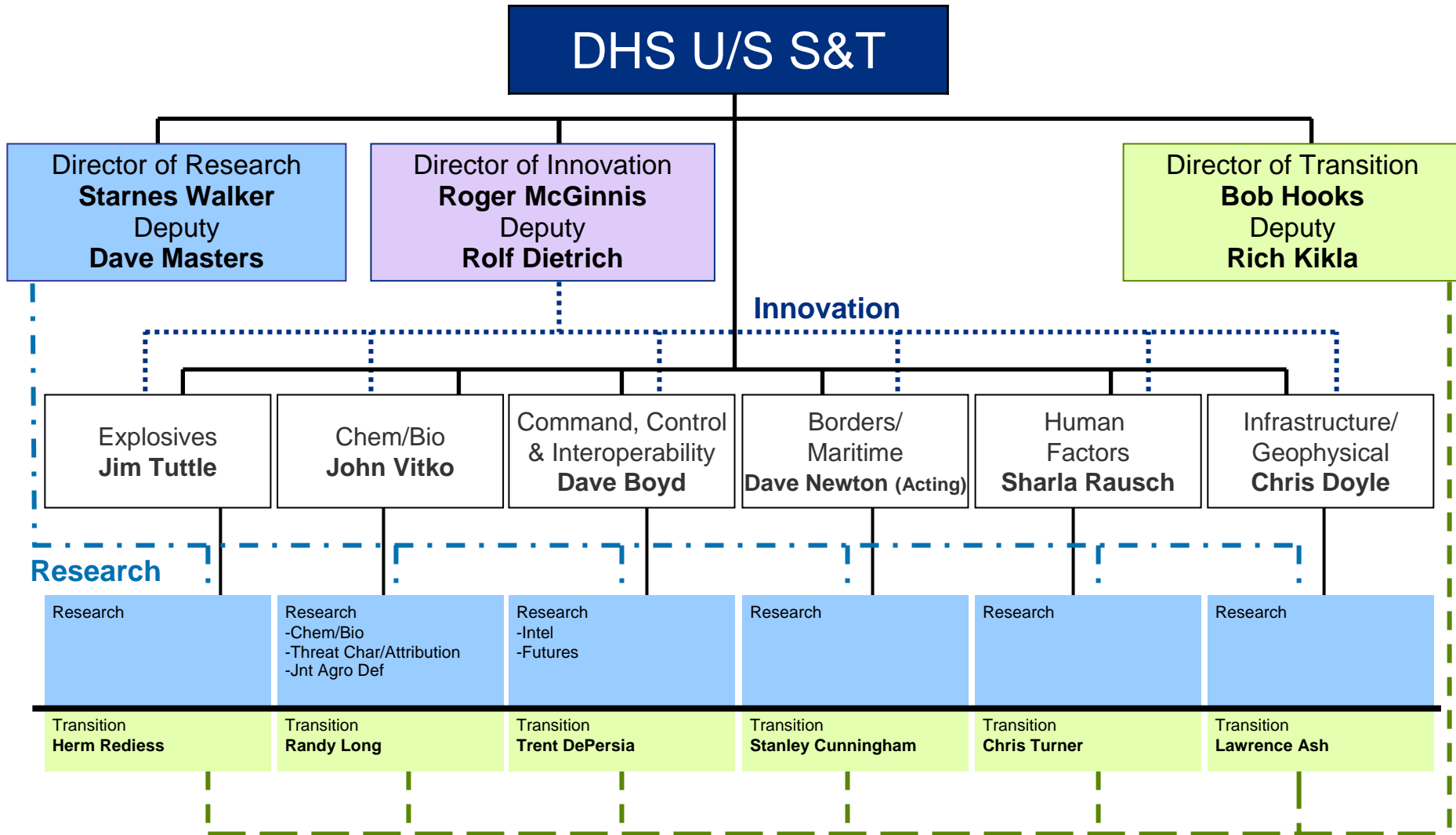
Product Transition (0-3 yrs) <ul style="list-style-type: none">• Focused on delivering near-term products/enhancements to acquisition• Customer IPT controlled• Cost, schedule, capability metrics	Innovative Capabilities (1-5 yrs) <ul style="list-style-type: none">• High-risk/High payoff• “Game changer/Leap 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

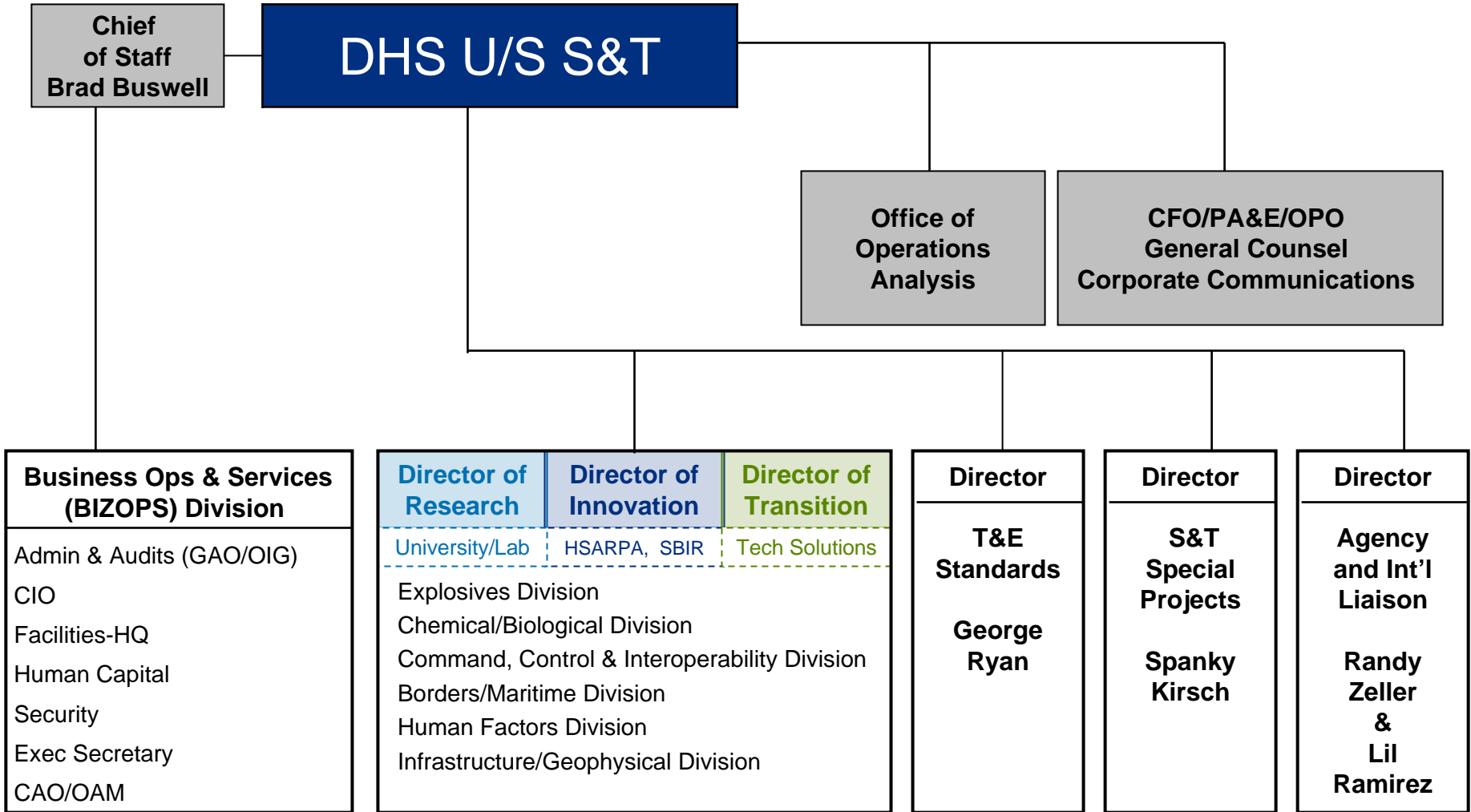


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S&T Organization



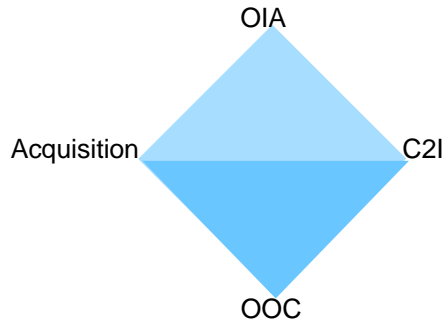
DHS S&T Directorate



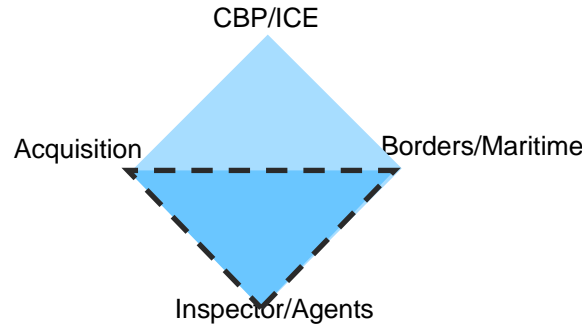
DHS Requirements/Capability Capstone IPTs

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

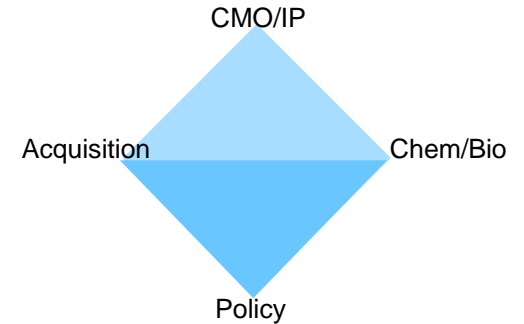
Information Sharing/Mgmt



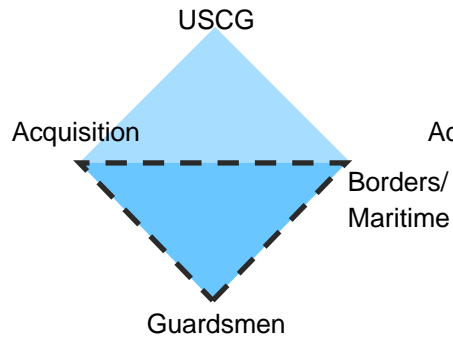
Border Security



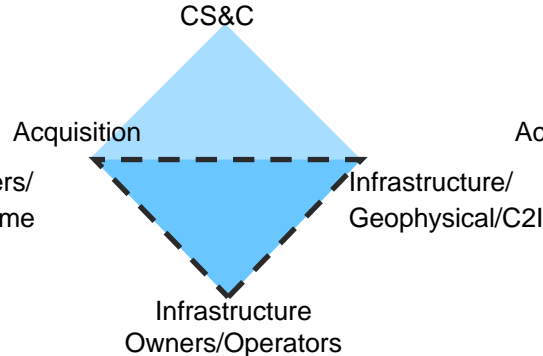
Chem/Bio Defense



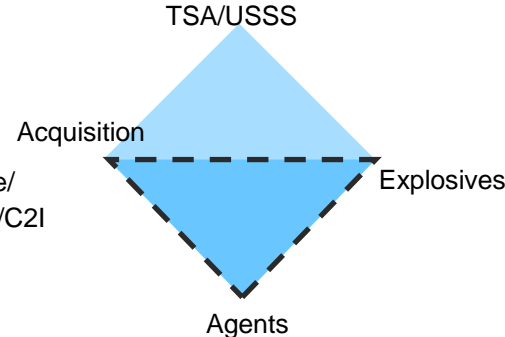
Maritime Security



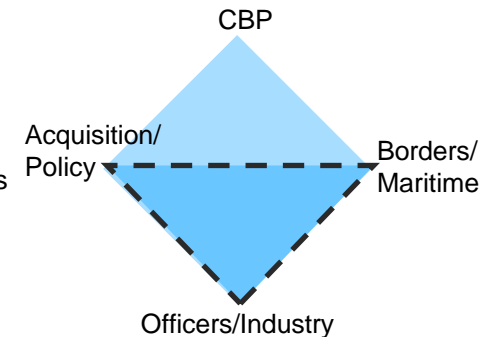
Cyber Security



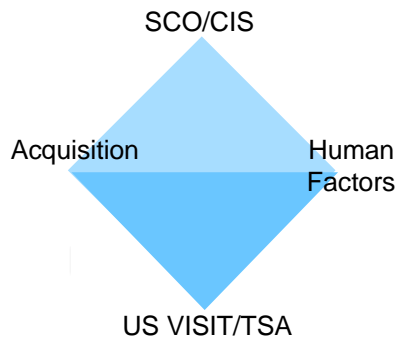
Explosive Prevention



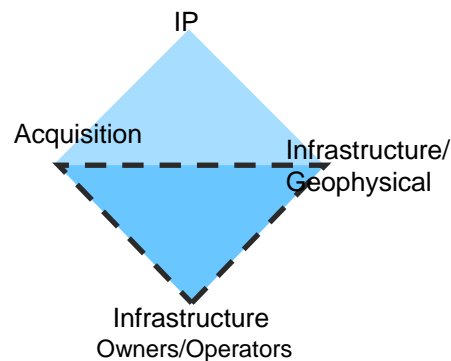
Cargo Security



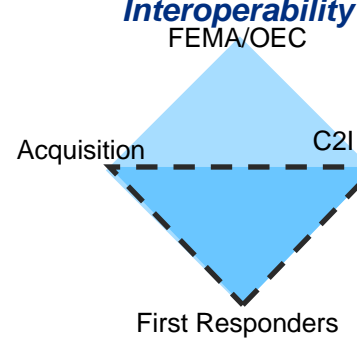
People Screening



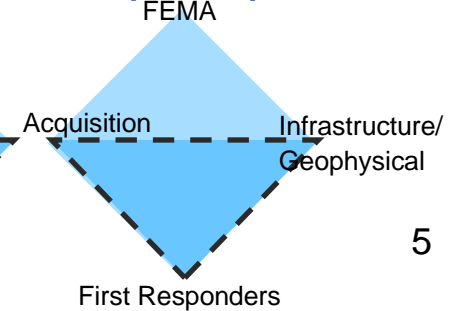
Infrastructure Protection



Incident Management

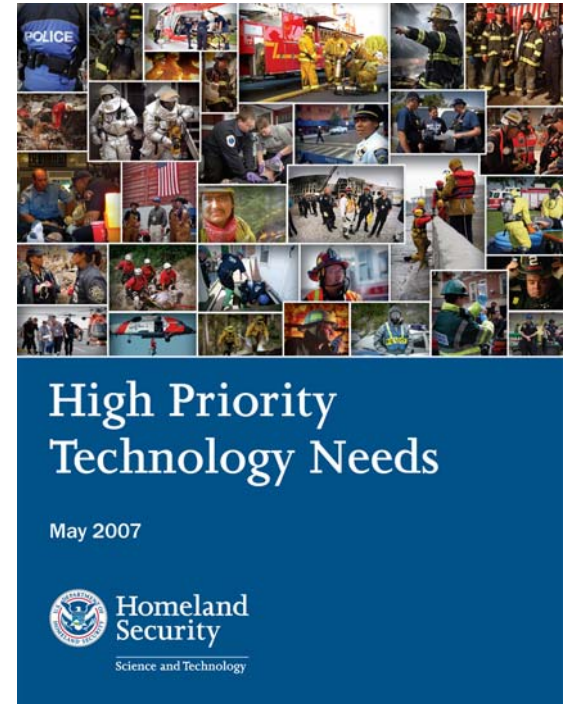


Interoperability Prep & Response



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

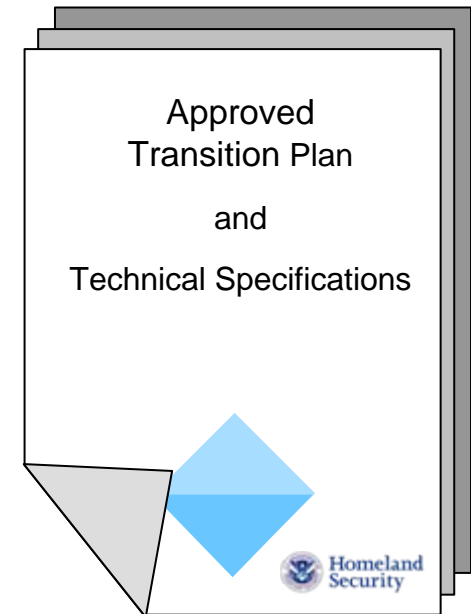
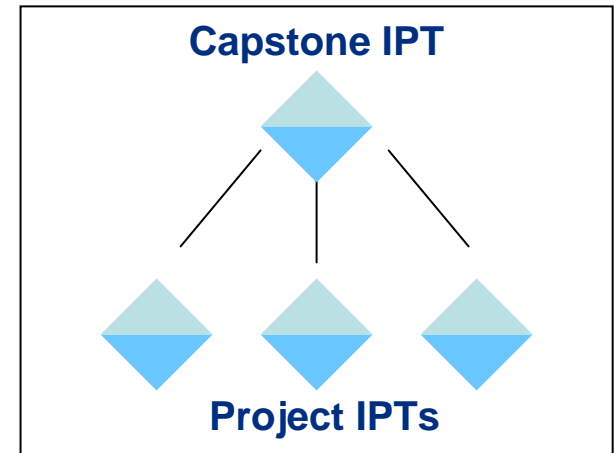


Customer Focused...Output Oriented

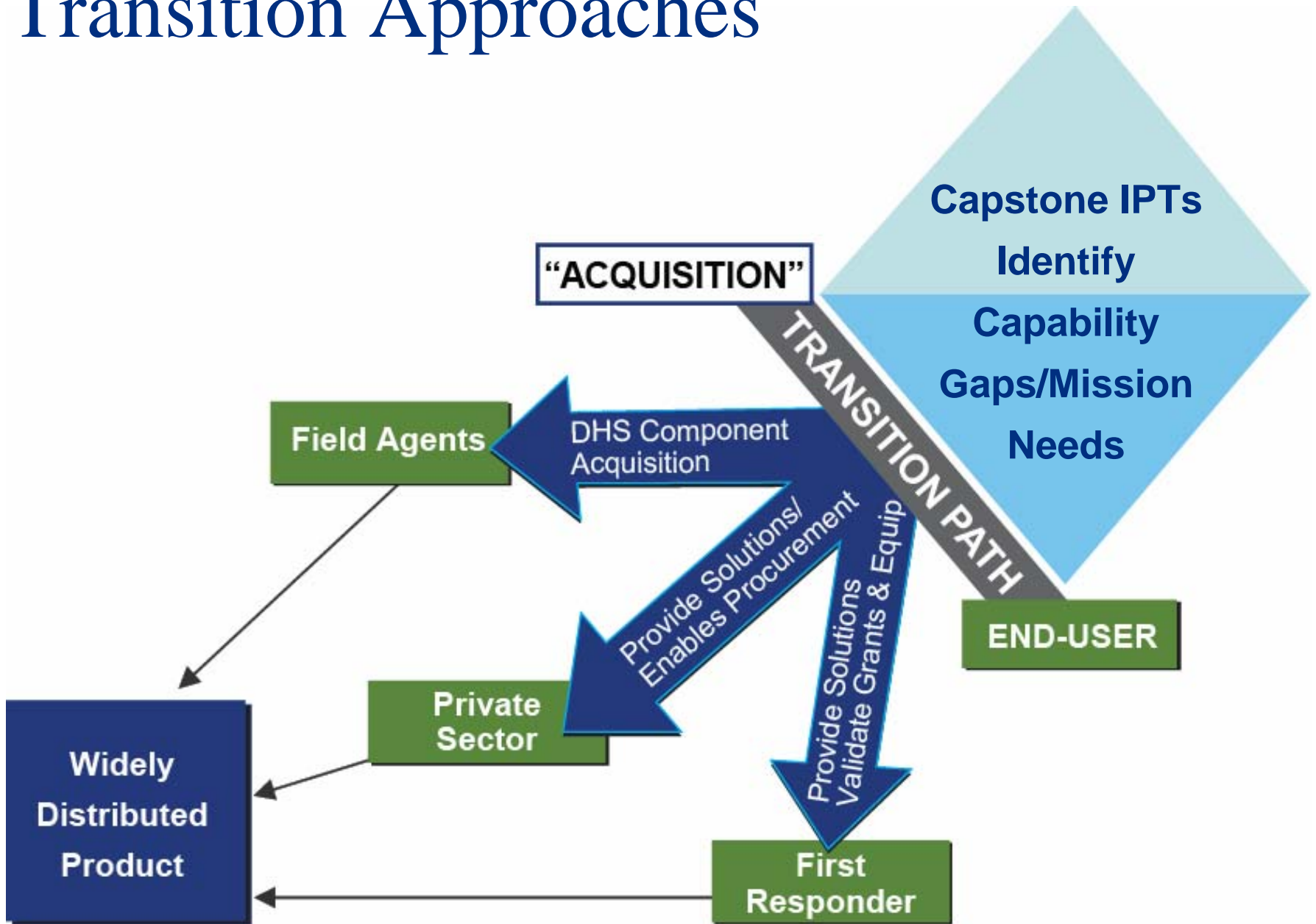


Established Project IPTs

- 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



Transition Approaches



DHS

DOJ



DOD



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SAFETY Act

Support Anti-Terrorism by Fostering Effective Technologies Act of 2002

- Enables the development and deployment of qualified anti-terrorism technologies
- Provides important legal liability protections for manufacturers and sellers of effective technologies
- Removes barriers to industry investments in new and unique technologies
- Creates market incentives for industry to invest in measures to enhance our homeland security
- The SAFETY Act liability protections apply to a vast range of technologies, including:
 - Products
 - Services
 - Software and other forms of intellectual property (IP)

Examples of eligible technologies:

- Threat and vulnerability assessment services
- Detection Systems
- Blast Mitigation Materials
- Screening Services
- Sensors and Sensor Integration
- Vaccines
- Metal Detectors
- Decision Support Software
- Security Services
- Data Mining Software

Protecting You, Protecting U.S.



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Criteria as stated in the SAFETY Act

- ✓ Is it an Anti-Terrorism Technology?
- ✓ Is it effective and available?
- ✓ Does it possess large potential third party liability risk exposure?
- ✓ Does Seller need SAFETY Act?
- ✓ Does it perform as intended?
- ✓ Does it conform to Seller's specifications?
- ✓ Is it safe for use as intended?

Addition SAFETY Act information...

Online: www.safetyact.gov Email: helpdesk@safetyact.gov

Toll-Free: 1-866-788-9318



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Award Criteria

	Developmental Testing and Evaluation (DT&E)	Designation	Certification
Effectiveness Evaluation Conclusion	Needs more proof, has potential	Demonstrated effectiveness, i.e. Developmental testing (with confidence of repeatability)	Consistently proven effectiveness, i.e. operational performance (with high confidence of enduring effectiveness)
Protection	Liability cap <ul style="list-style-type: none"> • only for identified test event(s) and for limited duration (=3yrs) 	Liability cap <ul style="list-style-type: none"> • for any and all deployments in 5-8 year term 	Government Contractor Defense (GCD) <ul style="list-style-type: none"> • for any and all deployments in 5-8 years term
Examples	<ul style="list-style-type: none"> • EDS not yet TSL Certified • Novel incident pattern matching service 	<ul style="list-style-type: none"> • Radiological detector with <u>laboratory</u> success Opt-out screeners, only similar projects completed 	<ul style="list-style-type: none"> • EDS TSL Certified • Well-documented infrastructure protection service with history of excellent performance and meeting DoE standards

EDS=Explosive Detection System TSL=Transportation Security Laboratory (TSA)



TechSolutions

The mission of TechSolutions is to rapidly address technology gaps identified by Federal, State, Local, and Tribal first responders

- Field prototypical solutions in 12 months
- Cost should be commensurate with proposal but less than \$1M per project
- Solution should meet 80% of identified requirements
- Provide a mechanism for Emergency Responders to relay their capability gaps
 - Capability gaps are gathered using a web site (www.dhs.gov/techsolutions)
- Gaps are addressed using existing technology, spiral development, and rapid prototyping
- Emergency Responders partner with DHS from start to finish

Rapid Technology Development

Target: Solutions Fielded within 1 year, at <\$1M



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