

# Introduction to SECURE Program



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# Homeland Security Mission

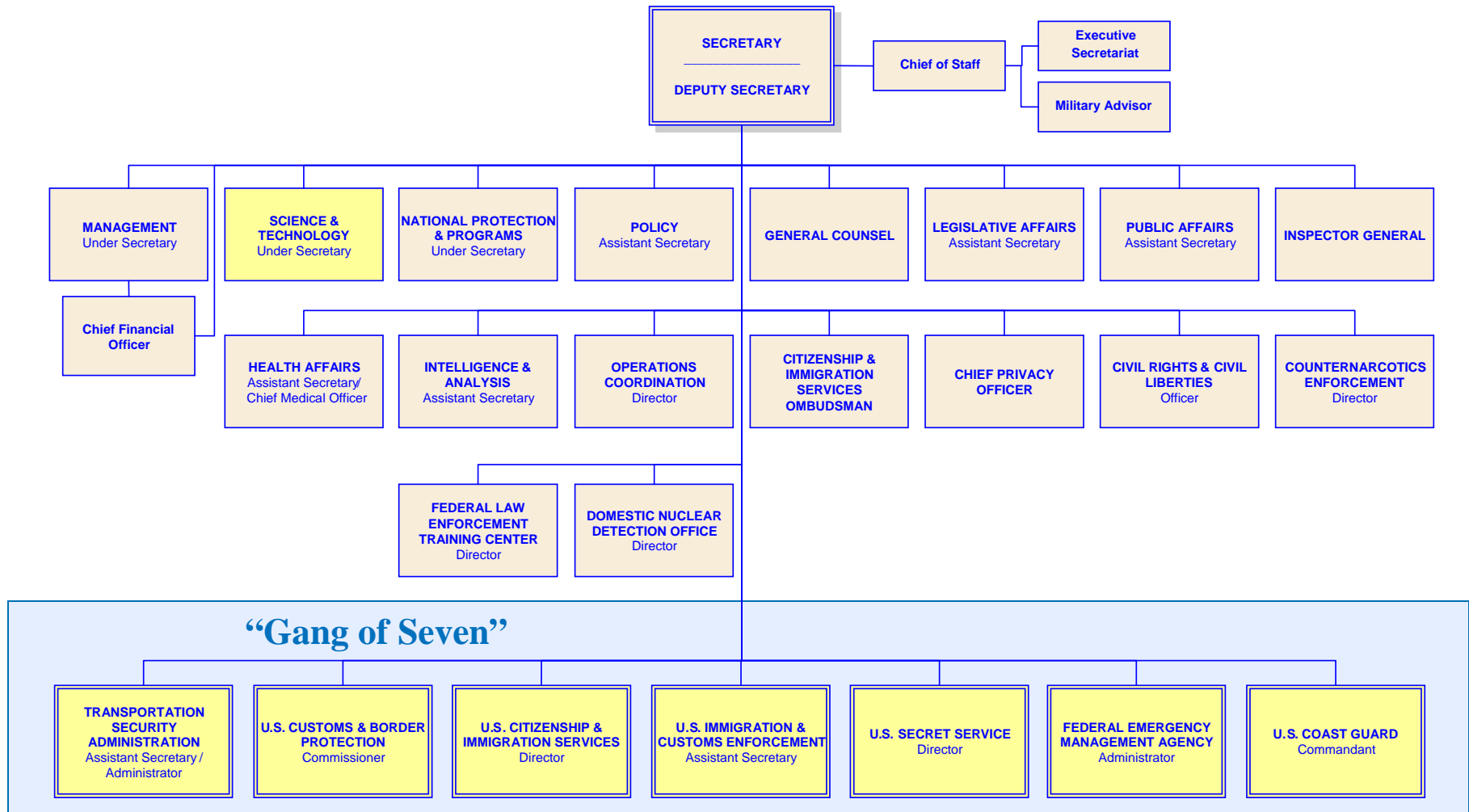


- Lead Unified National Effort to Secure America
- Prevent Terrorist Attacks Within the U.S.
- Respond to Threats and Hazards to the Nation
- Ensure Safe and Secure Borders
- Welcome Lawful Immigrants and Visitors
- Promote Free Flow of Commerce



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# U.S. Department of Homeland Security



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# S&T Goals

## Consistent with the Homeland Security Act of 2002

- **Accelerate the delivery of enhanced technological capabilities** to meet the requirements and fill capability gaps to support DHS agencies in accomplishing their mission.
- Establish a lean and agile world-class S&T management team to deliver the technological advantage necessary to ensure DHS Agency mission success and prevent technological 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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# Three Step Approach:

## Keep it Simple and Make it Easy

**1** Develop Detailed Requirements  
And Relay Conservative Market Potential

**2** Establish Strategic Partnerships

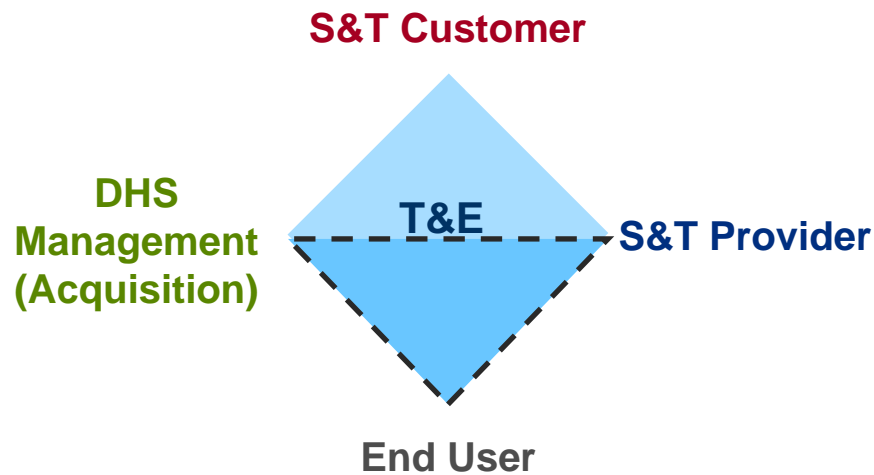
- Business Case Information
- Open Competition
- Detailed Mutual Responsibilities

**3** Deliver Products!

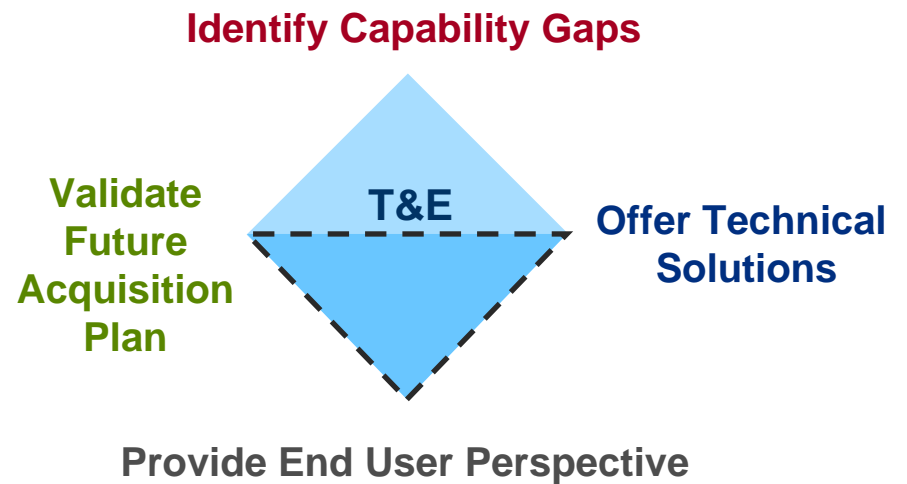


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# S&T Transition IPT Members and Function



- Industry Board of Directors Model
- Consensus-driven Process

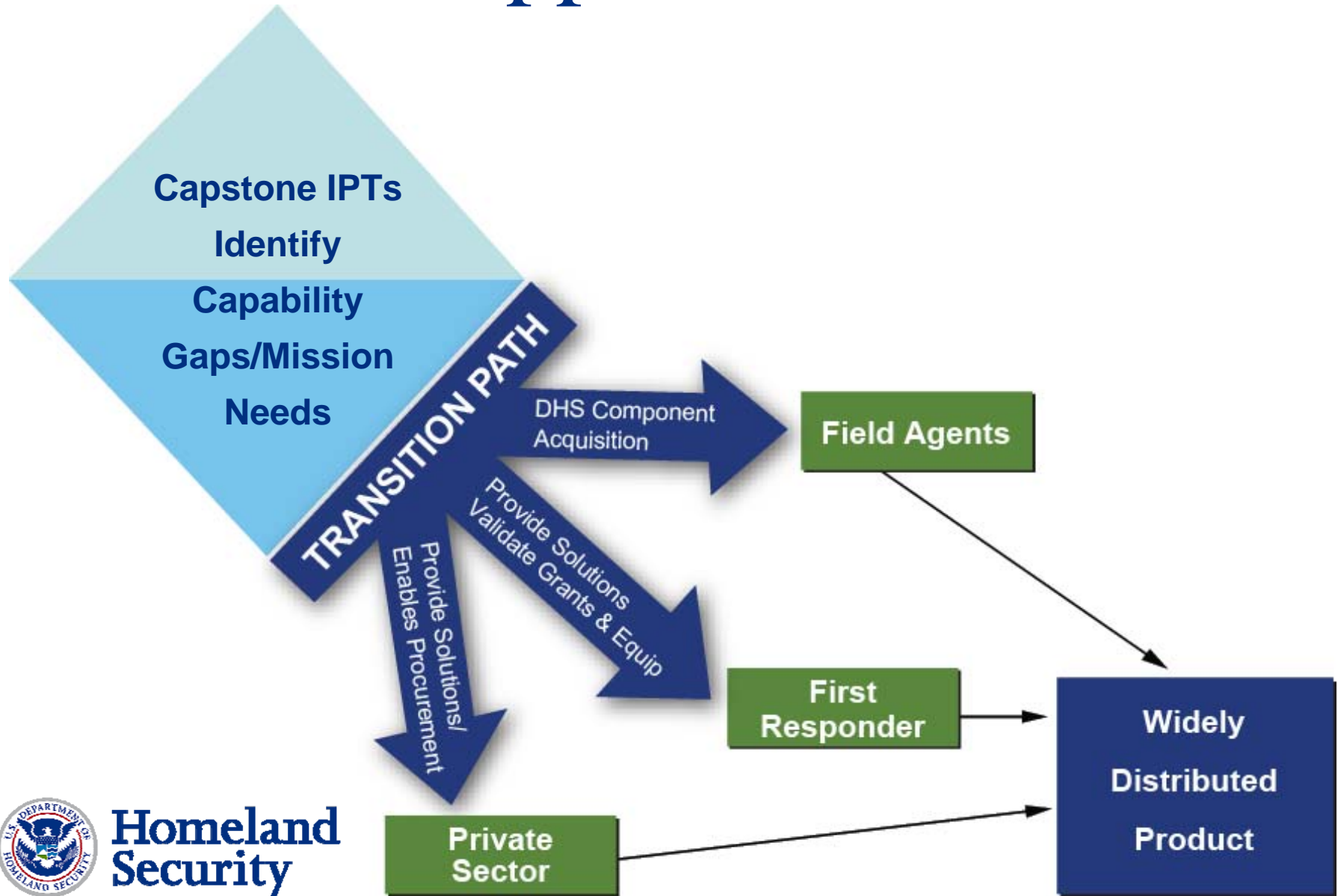


End Result :  
Prioritized Investments in S&T



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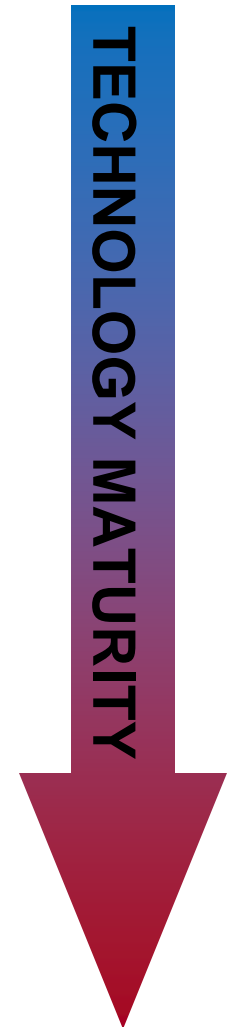
# Transition Approaches



# Technology Readiness Levels (TRLs): Overview

TRLs are NASA-generated and Used Extensively by DoD

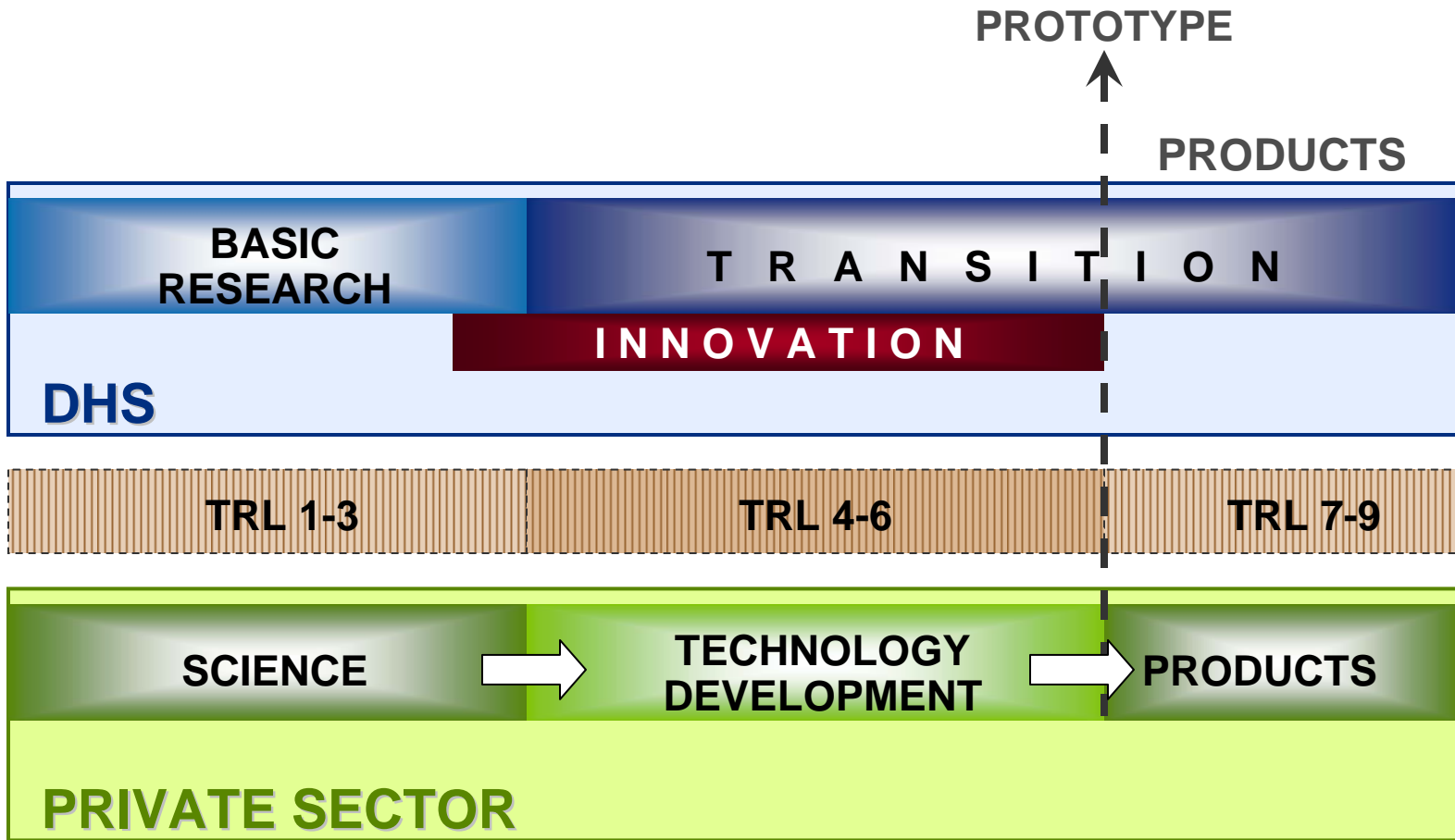
Basic principles observed and reported	<b>1</b>	<b>Basic</b>
Technology concept and/or application formulated	<b>2</b>	
Analytical and experimental critical function and/or characteristic	<b>3</b>	
Component and/or breadboard validation in laboratory environment	<b>4</b>	<b>Applied</b>
Component and/or breadboard validation in relevant environment	<b>5</b>	
System/subsystem model or prototype demonstration in a relevant environment	<b>6</b>	<b>Advanced</b>
System prototype demonstration in a operational environment	<b>7</b>	
Actual system completed and 'flight qualified' through test and demonstration	<b>8</b>	
Actual system 'flight proven' through successful mission operations	<b>9</b>	



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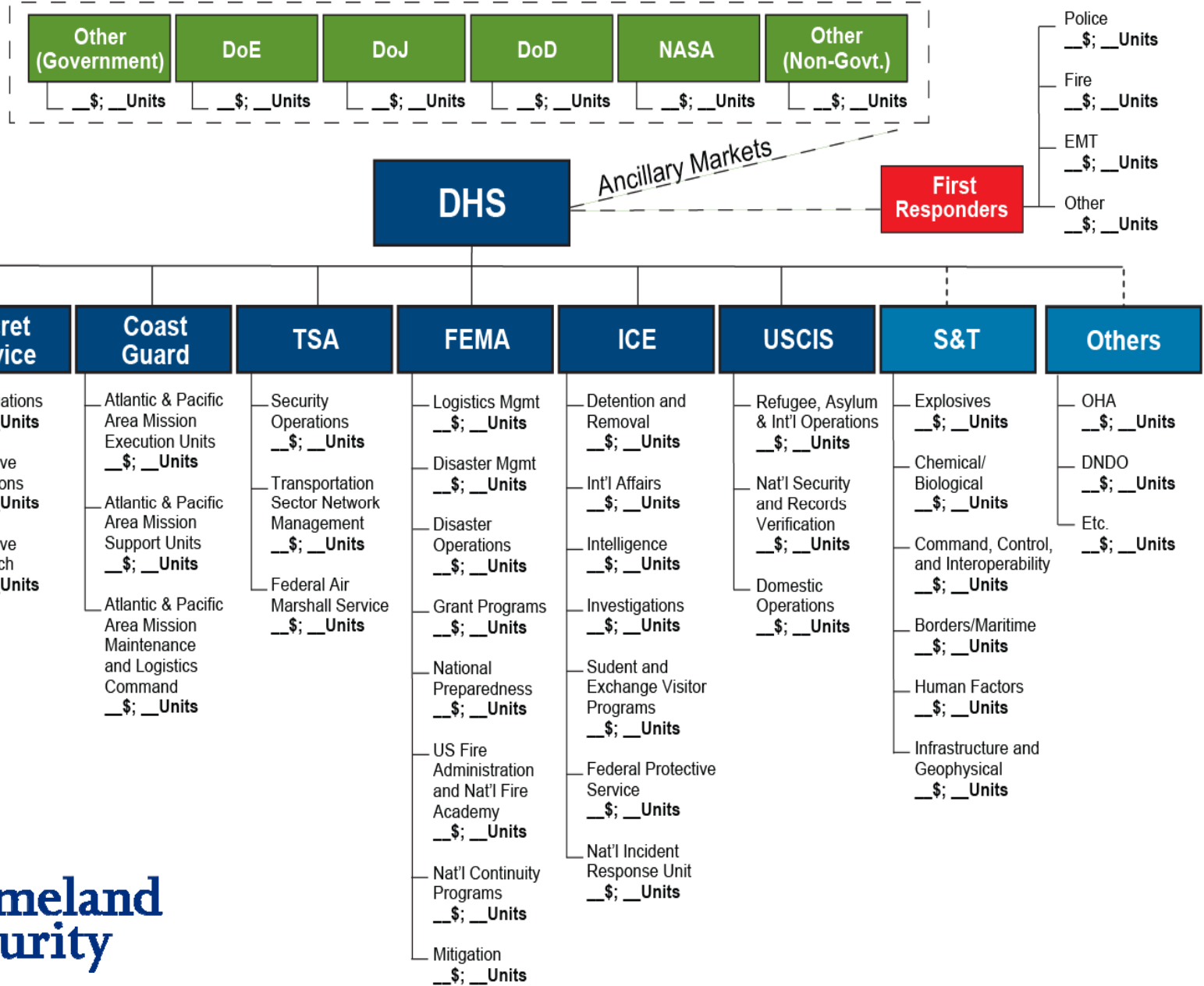


# Correlation: DHS and Private Sector



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# Market Potential Template

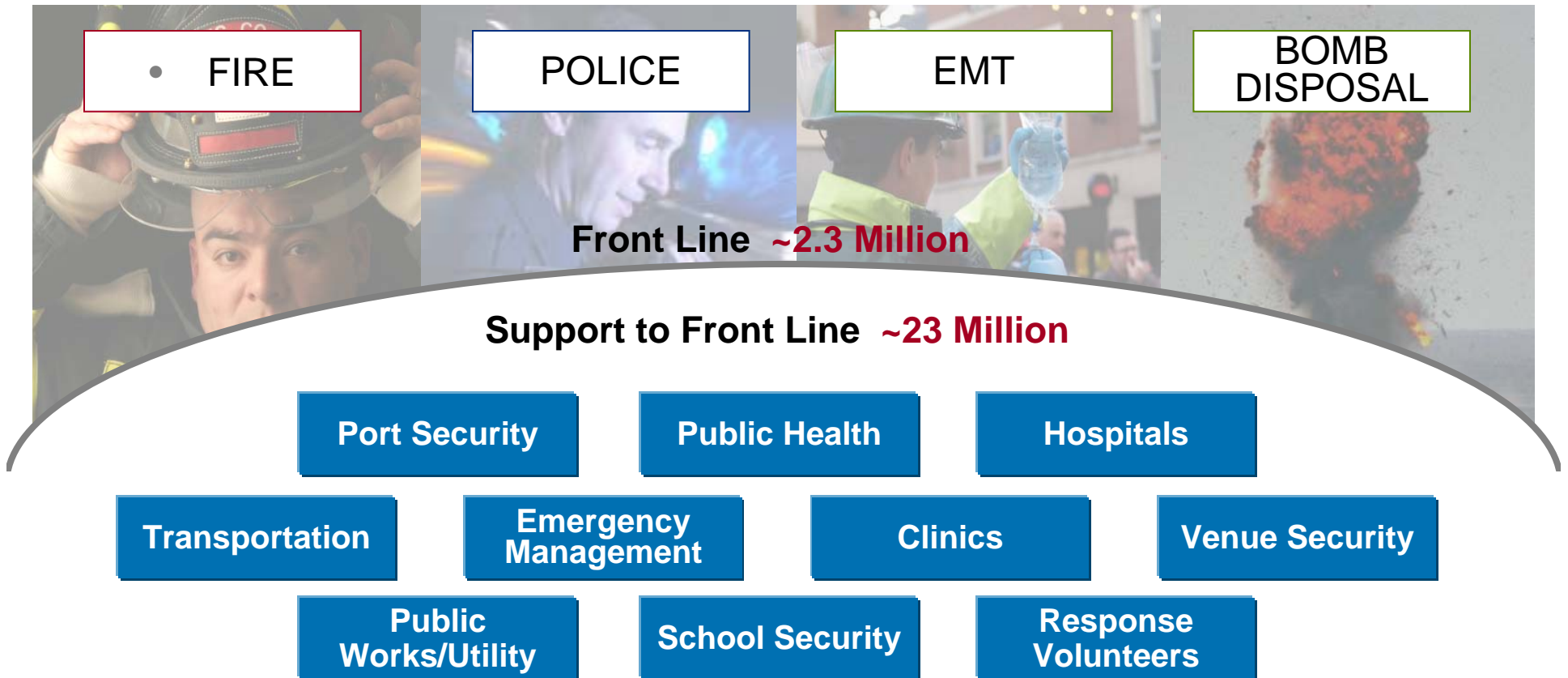


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# Conservative Estimate: Number of First Responders in the US

- Homeland Security Presidential Directive 8
- Steve Golubic (FEMA)

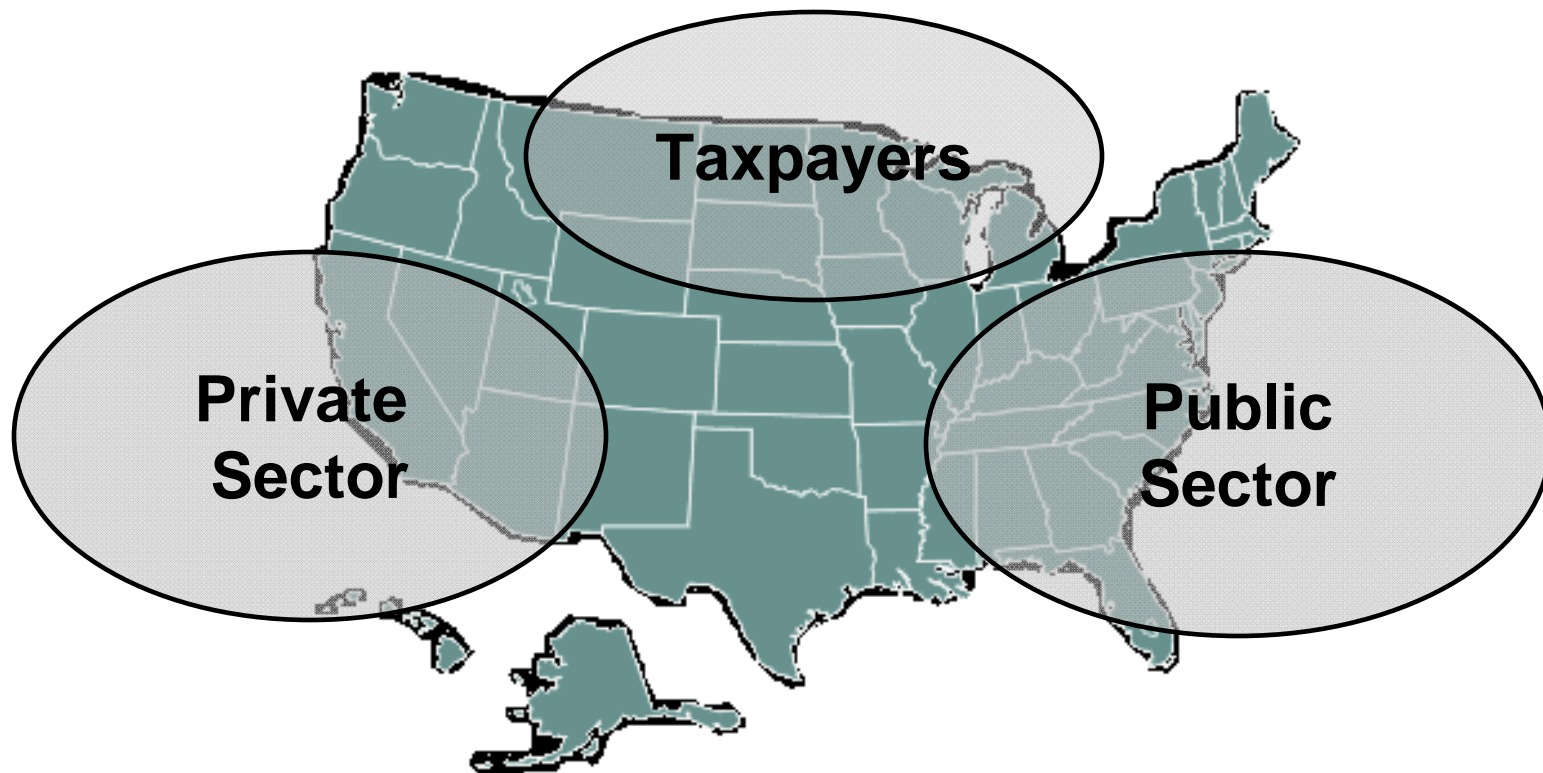
**Total: ~25.3 Million Individuals**



# SECURE Program

System Efficacy through Commercialization, Utalization,  
Relevance and Evaluation

## WIN - WIN - WIN



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# SECURE Program

Mutually-Beneficial Goals Achieved Through Rigorous Process”

## Goals

**S**ystem

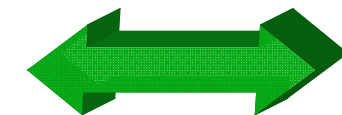
**E**fficacy  
through

**C**ommercialization

**U**tilization

**R**elevance

**E**valuation



## Process

DHS Detailed Requirements

Private Sector Product Development

Product Launch, Sales and Marketing

Customer-Focused Capstone IPT Process

Third-party Test & Evaluation  
with DHS Validation



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# SECURE Program

## Concept of Operations



- Application – Seeking products/technologies aligned with posted DHS requirements
- Selection – Products/Technologies TRL-5 or above, scored on internal DHS metrics
- Agreement – One-page CRADA-like document. Outlines milestones and exit criteria
- Publication of Results – Independent Third-Party T&E conducted on TRL-9 product/technology. Results verified by DHS, posted on DHS web-portal

### Benefits:

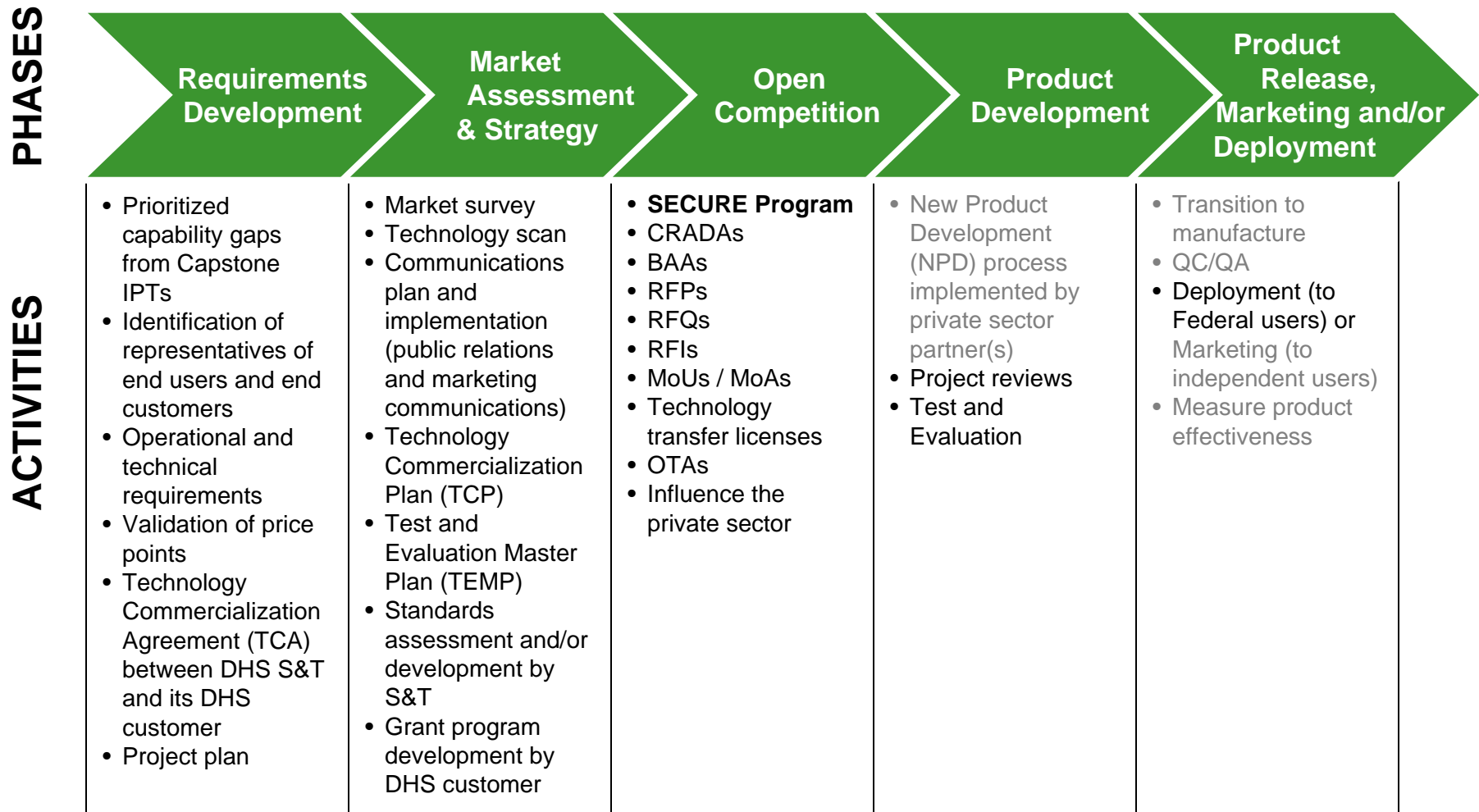
- ✓ Successful products/technologies share in the imprimatur of DHS
- ✓ DHS Operating Components and First Responders make informed decisions on products/technologies aligned to their stated requirements
- ✓ DHS spends less on acquisition programs → Taxpayers win.



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# Private Sector Outreach Process

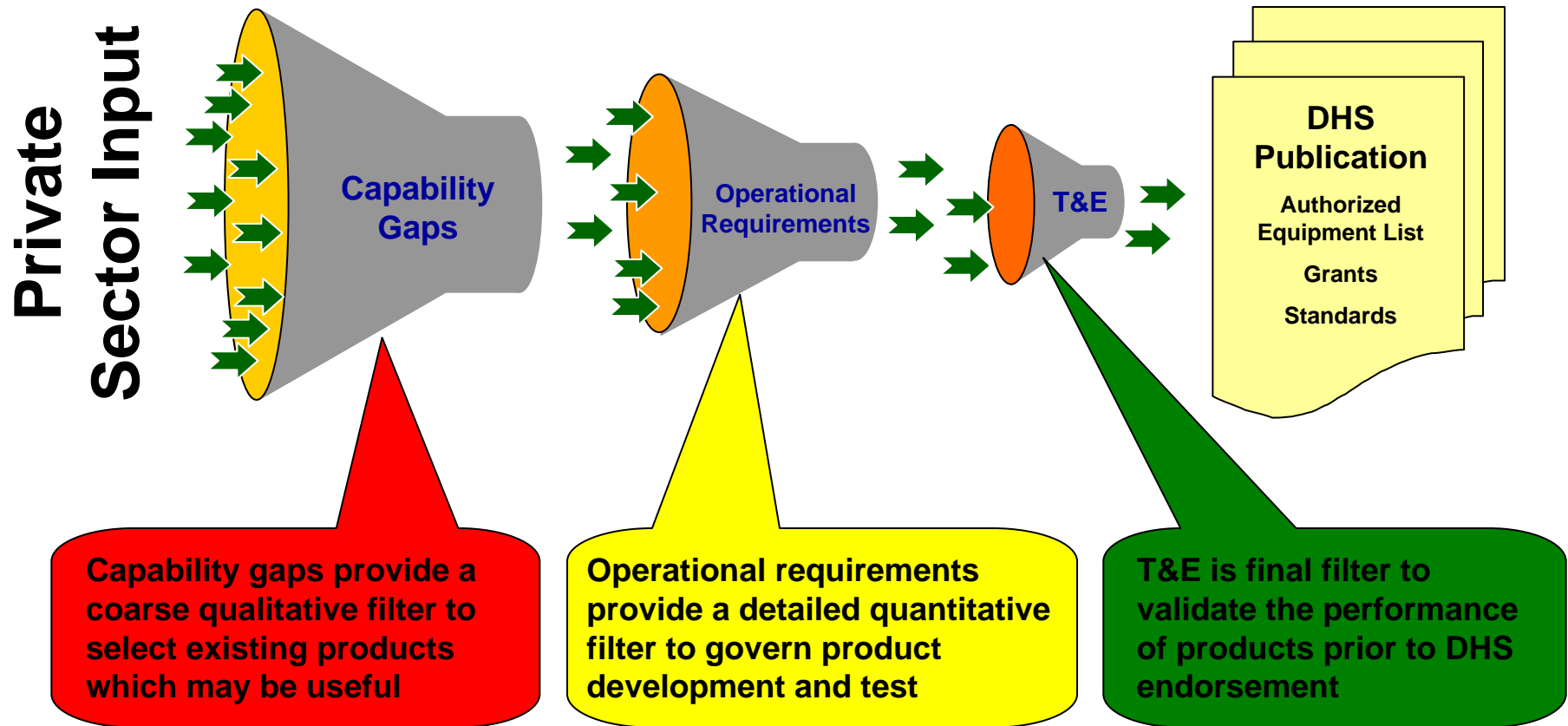
## Requirements Development through Product Release



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Legend: Black text = Government activities  
 Grey text = Private-sector activities

# Commercialization Process Filters

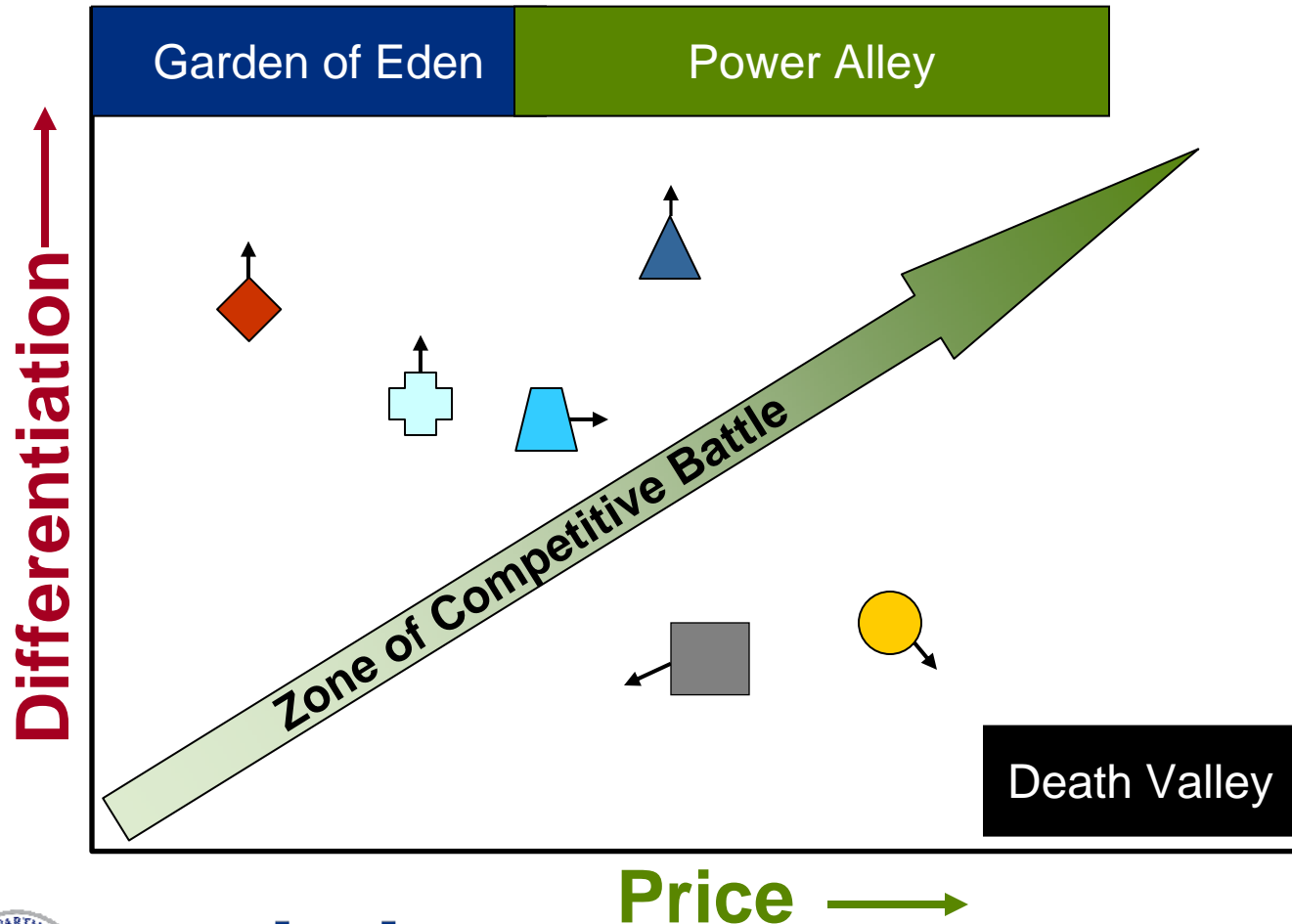


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# Show Us the Difference...

## Hall's Competitive Model



- As a function of:
- Market
  - Application
  - Technology



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$$\text{Differentiation} = (A+B)C/(D+E)$$

# Summary

**Detailed Requirements**

**Sizeable Market Potential**

**Delivered Products – PERIOD!**

**How Can You Afford NOT to Partner with DHS S&T?**

Questions/Comments:

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## U.S. Department of Homeland Security: Science and Technology Directorate's Chief Commercialization Officer

Thomas A. Cellucci, PhD, MBA was recently appointed Chief Commercialization Officer for the Department of Homeland Security's Science and Technology (S&T) Directorate . The Chief Commercialization Officer (CCO) is responsible for initiatives that identify, evaluate and commercialize technology for the specific goal of rapidly developing and deploying products and services that meet the specific operational requirements of the Department of Homeland Security's Operating Components and its end users. The CCO also develops and drives the implementation of DHS-S&T's outreach with the private sector to establish and foster mutually-beneficial working relationships to facilitate cost-effective and efficient product/service development efforts.



Cellucci is an accomplished serial entrepreneur, seasoned senior executive and Board member possessing extensive corporate and VC experience across a number of worldwide industries. Profitably growing high technology firms at the start-up, mid-range and large corporate level has been his trademark. In 1999, he founded a highly successful management consulting firm--Cellucci Associates, Inc. -- that raises capital and provides strategic business services to top-tier global high technology firms. He serves on both public and private Boards and has authored or co-authored over 120 articles on Nanotechnology, Laser physics, Photonics, Environmental disturbance control, MEMS test and measurement, Mistake-proofing enterprise software, and Sales & Marketing. He has also held the rank of Lecturer or Professor at institutions like Princeton University, University of Pennsylvania and Camden Community College. Cellucci also co-authored ANSI Standard Z136.5 "The Safe Use of Lasers in Educational Institutions".

As a result of his consistent achievement in the commercialization of emerging technologies, Cellucci has received numerous awards and citations from industry, government and business.

Cellucci earned a PhD in Physical Chemistry from the University of Pennsylvania, an MBA from Rutgers University and a BS in Chemistry from Fordham University. He has also attended and lectured at executive programs at the Harvard Business School, MIT Sloan School, Kellogg School and others. Dr. Cellucci is regarded as an authority in rapid time-to-market new product development and is a frequent public speaker.



# Full Response Package

- Please request a Full Response Package by sending an e-mail to [Thomas.Cellucci@dhs.gov](mailto:Thomas.Cellucci@dhs.gov).
- The Full Response Package contains:
  - Opportunities for the Private Sector Brief
  - DHS High Priority Technology Needs
  - SECURE Program Concept of Operations
  - Operational Requirements Document Template
  - Company Overview and Capabilities example



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