

DHS Science and Technology Directorate

Homeland Security Advanced Research Projects Agency

What We Do

DHS Science and Technology Directorate (S&T) strengthens America's security and resiliency by providing knowledge products and innovative technology solutions for the Homeland Security Enterprise (HSE). Homeland Security Advanced Research Projects Agency (HSARPA) focuses on identifying, developing, and transitioning technologies and capabilities to counter chemical, biological, explosive, and cyberterrorism threats, as well as protect our nation's borders and infrastructure.

HSARPA divisions work directly with DHS components to better understand and address their high-priority requirements and define operational context by conducting analyses of current missions, systems, and processes. This process ultimately identifies operational gaps where S&T can have the greatest impact on operating efficiency and increasing capability. In addition, Apex Technology Engines (Engines) power open innovation by harnessing subject matter experts and capabilities across DHS.

Efforts include basic technical evaluations, knowledge products, developmental improvements, full life-cycle research, and piloting of new and existing technologies.

Five Divisions - One Team

HSARPA is made up of five divisions, each with a specific focus, with the **Apex Technology Engines** supporting each of the divisions.

- **Borders and Maritime Security Division:** Prevents contraband, criminals, and terrorists from entering the United States, while permitting the lawful flow of commerce and visitors.
- **Chemical and Biological Defense Division:** Detects, protects against, responds to, and recovers from biological or chemical threats and events.
- **Cyber Security Division:** Creates a safe, secure, and resilient cyber environment.
- **Explosives Division:** Detects, prevents, and mitigates explosives attacks against people and infrastructure.
- **Resilient Systems Division:** Enhances resilience to prevent and protect against threats, mitigates hazards, responds to disasters, and expedites recovery.



Apex Programs: High-profile and multidisciplinary programs executed over a three to five year time span. Through the use of a balanced portfolio of projects, Apex Program deliverables range from game-changing technical capabilities to cost-saving business processes.

Apex Technology Engines: Identifies and shares subject matter expertise, technical solutions, tools, best practices, lessons learned and reusable products and solutions on behalf of Apex and other S&T programs. Over time, the Engines' collective experience and awareness of emerging technology trends will result in a robust knowledge base and network to serve the dynamic needs of S&T and the DHS enterprise.

HSARPA Goals

HSARPA's research and development (R&D) portfolio strikes a balance between near term lower risk technologies and longer term, high-risk/high-payoff technologies. This technical focus on innovation encourages opportunities for new ideas and competition from the private sector, small business, industry, academia, and federally funded research and development centers.

HSARPA's end-goal is to integrate knowledge, technologies, and science-based solutions into HSE operations with innovation cycles from project inception through operational testing. HSARPA hosts a competitive and rigorous project selection process with regular formal reviews of the entire R&D portfolio.



Homeland
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To learn more about HSARPA and its initiatives,
visit www.dhs.gov/science-and-technology/HSARPA