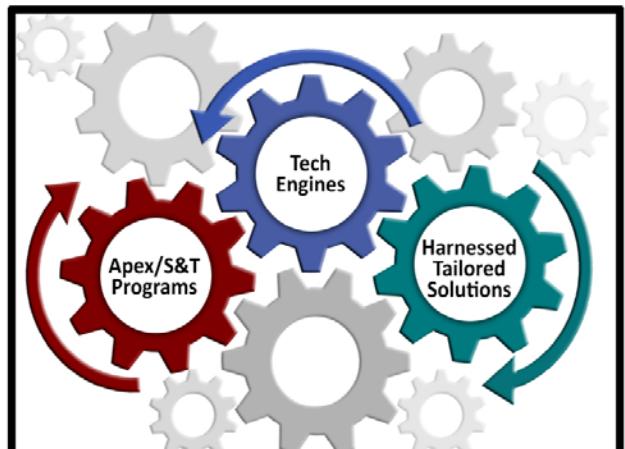


# DHS Science and Technology Directorate

## Apex Technology Engines FAQs – “Powering Open Innovation”



### Powering Open Innovation

#### Why is S&T adopting the Technology Engine model?

The dynamic threats to our nation and the fast-moving pace of technology require an updated way of thinking about how the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) approaches research and development (R&D) solutions. Apex Technology Engines (Engines) are a key strategy for achieving the S&T Visionary Goals that address these challenges. The Engines enable Apex projects and other S&T programs to capitalize on expertise and technology from across the DHS enterprise by expanding opportunities for involvement and application of subject matter experts (SMEs). They represent an agile approach to identify, develop, and repurpose R&D solutions.

#### How will the Engines produce measurable results and realize a return on investment?

The Engines enable application of existing and emerging solutions across multiple Apex projects and other S&T programs, reducing redundancy and increasing agility. This approach fosters collaboration and opportunities for innovation, accelerating the impact and application of S&T’s R&D within the DHS component agencies.

#### What are the Engines’ basic capabilities?

To leverage expertise and technologies from across the DHS enterprise, the Engines:

- Identify cross-program requirements and how specific solutions might be repurposed and applied on numerous projects
- Provide ongoing advice and support to Apex and other S&T programs to leverage existing and emerging technologies, methods, and tools
- Forecast demand for specific technological needs and services.

#### What specific services do the Engines offer?

Engines provide Apex and other S&T programs:

- Access to and involvement of the DHS enterprise as well as industry and academic SMEs, including opportunities for collaboration, coordination, and networking
- Identification and application of state-of-the-art technology, methods, and tools
- Application of lessons learned and best practices
- Contractual means for more timely response to R&D service requests.

#### What does “Powering Open Innovation” mean?

“Powering Open Innovation” refers to identifying and applying knowledge, practices, and solutions by leveraging the broadest possible network of SMEs within and beyond S&T and DHS to address strategic and operational challenges. This approach allows S&T to improve agility and “speed to market” as new technologies and solutions are identified, developed, and deployed to better prevent, respond to, and recover from all hazards and homeland security threats.



**Homeland  
Security**

Science and Technology

To learn more about Apex Technology Engines, contact  
[technologyengines@hq.dhs.gov](mailto:technologyengines@hq.dhs.gov)

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### **How will the Engines use a “teaming” approach to achieve their outcomes?**

Teaming is fundamental to Engine success. The Engines will draw intellectual capital and other resources from across various S&T organizations and beyond to apply to Apex projects and other S&T programs. These resources are vital to understanding existing and emerging threats facing the homeland and identifying approaches to address them. The Engine teaming approach has emerged from S&T’s belief that partnership and collaboration are a key strategy for identification and application of research and technology.

### **What other specific outputs will the Engines provide?**

In addition to providing expertise and counsel to Apex and other S&T projects, the Engines will develop and provide specific solution approaches, requirements identification, and studies on topics that apply to multiple projects.

### **How will the Engines use “demand forecasting”?**

Staying ahead of emerging threats requires an in-depth understanding of the DHS component agency operational and technological environment and an agile way to discover and apply existing and emerging solutions to that environment. Engines will proactively identify technological trends to bring the latest capabilities to bear as emerging threats and opportunities are identified and addressed. This will also support Apex and other S&T programs in rapidly and efficiently applying the best solutions based on actual demand from the DHS component agencies.

### **How long will a specific Engine exist?**

Engine life-cycle times will vary. Specific Engines will evolve or retire as demand for their expertise changes. The need for Engines is driven by demand from Apex projects and other S&T programs. The pace of technology change means that new Engine needs will be identified as S&T program priorities evolve.

### **How do I contact the Engines Team?**

You may leave your ideas or questions in the Engines’ organizational mailbox: [technologyengines@hq.dhs.gov](mailto:technologyengines@hq.dhs.gov)



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