

# DHS Science and Technology Directorate

## Integrated Product Teams

### Teaming for research and development

Capability gaps present a challenge for DHS components on the front lines, and technology is often the solution to provide agents, officers, and other first responders with the tools needed to close those gaps. However, if the technologies do not exist, it is the role of the Science and Technology Directorate (S&T) to provide components with research and development (R&D) and technology acquisition support. S&T delivers this support by coordinating integrated product teams (IPTs), cross-DHS entities that bring together operational and technical experts to prioritize capability gaps and address front line problems with viable technological solutions.

Established by DHS Secretary Jeh Johnson, IPTs focus on five mission areas: including: aviation security, biological threat, counterterrorism, border security, and cyber security. In addition, sub-IPTs will be created to address key issues such as resilience. S&T will also continue its support for first responders through the [First Responder Resource Group](#), or the FRRG.

---

Aviation Security

---

Biological Threat

---

Border Security

---

Counterterrorism

---

Cyber Security

---

These teams provide value by having members who understand the challenges as well as members who understand the needed solutions. Components like U.S. Customs and Border Protection and U.S. Coast Guard sit side-by-side with technical experts who can provide insight into solutions like detection or sensor technologies that are so valuable to law enforcement. Component leaders, program experts, the DHS Headquarters Joint Requirements Council (JRC), and S&T technical experts make up the following groups and report final outcomes to key DHS leaders.

---

**IPTs** – component leaders who initiate IPT process; prioritize and endorse sub-IPT gaps and corresponding R&D plans.

- **Sub-IPTs** – component PMs who identify specific technological capability gaps.

---

**JRC** – senior requirements review board that identifies cross-cutting opportunities and common requirements across DHS.

---

**Science and Technology Requirements Council (SRC)** – senior component representatives, led by S&T, who validate and prioritize R&D investments.

---

**DHS Leadership** – Under Secretary for Science and Technology (USST) reviews and forwards the final recommended R&D plan and prioritized technologies to DHS Secretary for approval.

---

### IPT outcomes unify DHS, inform private sector

The IPT process allows for the stakeholders from these components, headquarters, and S&T to gain a better understanding of longstanding and emerging needs—for both component-specific and cross-cutting needs that impact multiple components. IPTs also support an effective metrics-based approach to transitioning technological solutions. By developing these metrics together, DHS increases the chances of bringing solutions to the front lines.

IPTs also provide greater transparency across the Department into the budget and acquisition processes that are vital to R&D. After the IPTs identify all ongoing R&D activities across the Department and prioritize capability gaps, this information serves as a roadmap for future investments to justify and coordinate DHS-wide R&D. Additionally, a coordinated R&D plan allows DHS to synchronize its priorities with acquisition and Congressional budget plans.

IPT outcomes also inform the private sector, which is key to helping technologies transition into the marketplace.

By prioritizing capability gaps, S&T and components can focus private sector engagement around the most-needed technologies, promoting more rapid commercialization and adoption.



Homeland  
Security

Science and Technology

For more information visit <http://www.dhs.gov/science-and-technology/ipt>