

DHS SCIENCE AND TECHNOLOGY

DHS S&T Overview

7 December 2018

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Chief Scientist



**Homeland
Security**

Science and Technology

S&T MISSION

To deliver effective and innovative insight, methods and solutions for the critical needs of the Homeland Security Enterprise.

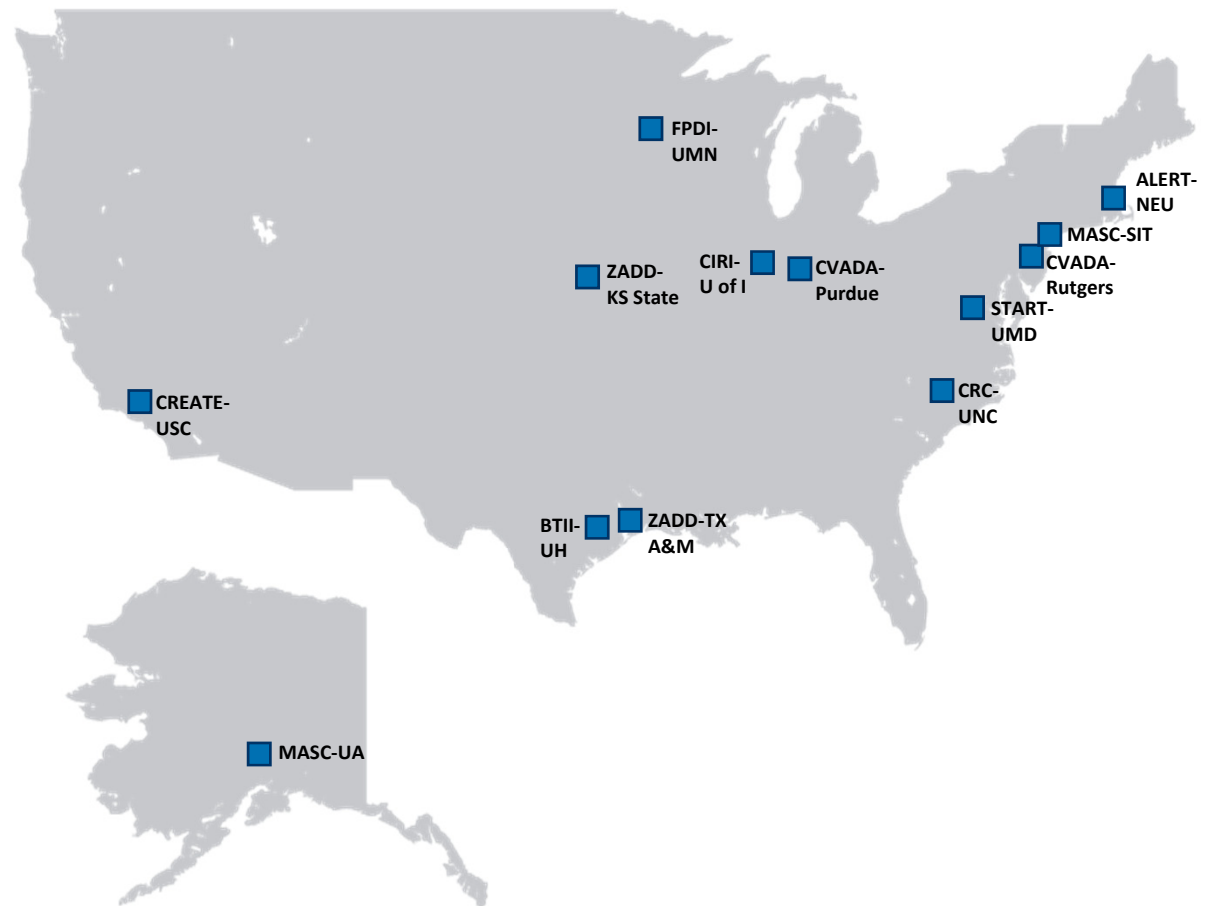
DHS FIVE MISSION AREAS



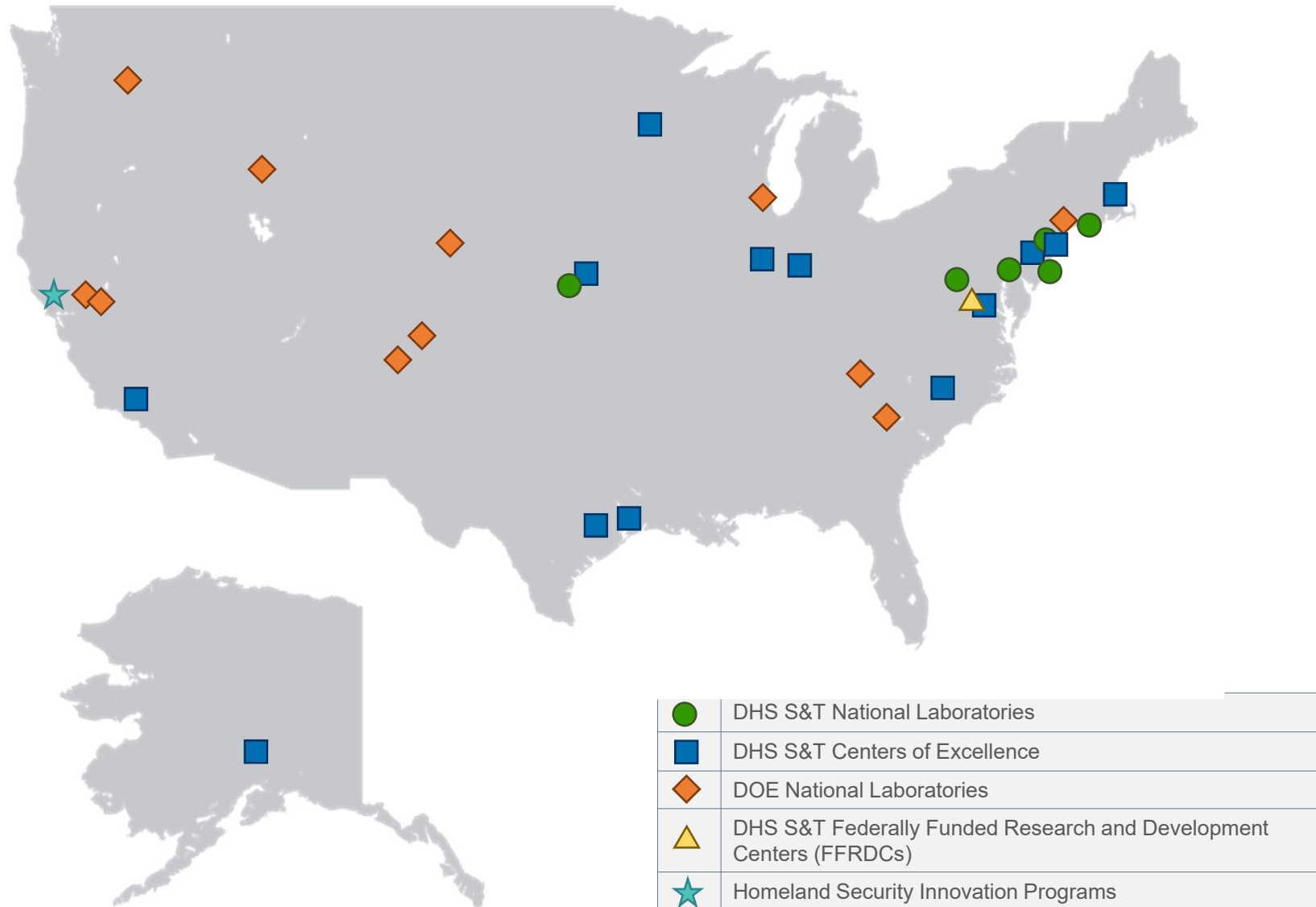
DHS SCIENCE AND TECHNOLOGY CENTERS OF EXCELLENCE (COE) ■

Our COE network is an extended consortium of hundreds of universities conducting groundbreaking research to address homeland security challenges.

MASC	Maritime & Arctic Security Center
ALERT	Center for Awareness and Localization of Explosives-Related Threats
BTII	Center for Borders, Trade and Immigration Research
CIRI	Critical Infrastructure Resilience Institute
CRC	Coastal Resilience Center of Excellence
CREATE	National Center for Risk and Economic Analysis of Terrorism Events
CVADA	Center for Visualization and Data Analytics
FPDI	Food Protection and Defense Institute
START	National Consortium for the Study of Terrorism and Responses to Terrorism
ZADD	National Center for Zoonotic and Animal Disease Defense



S&T NETWORK – U.S.



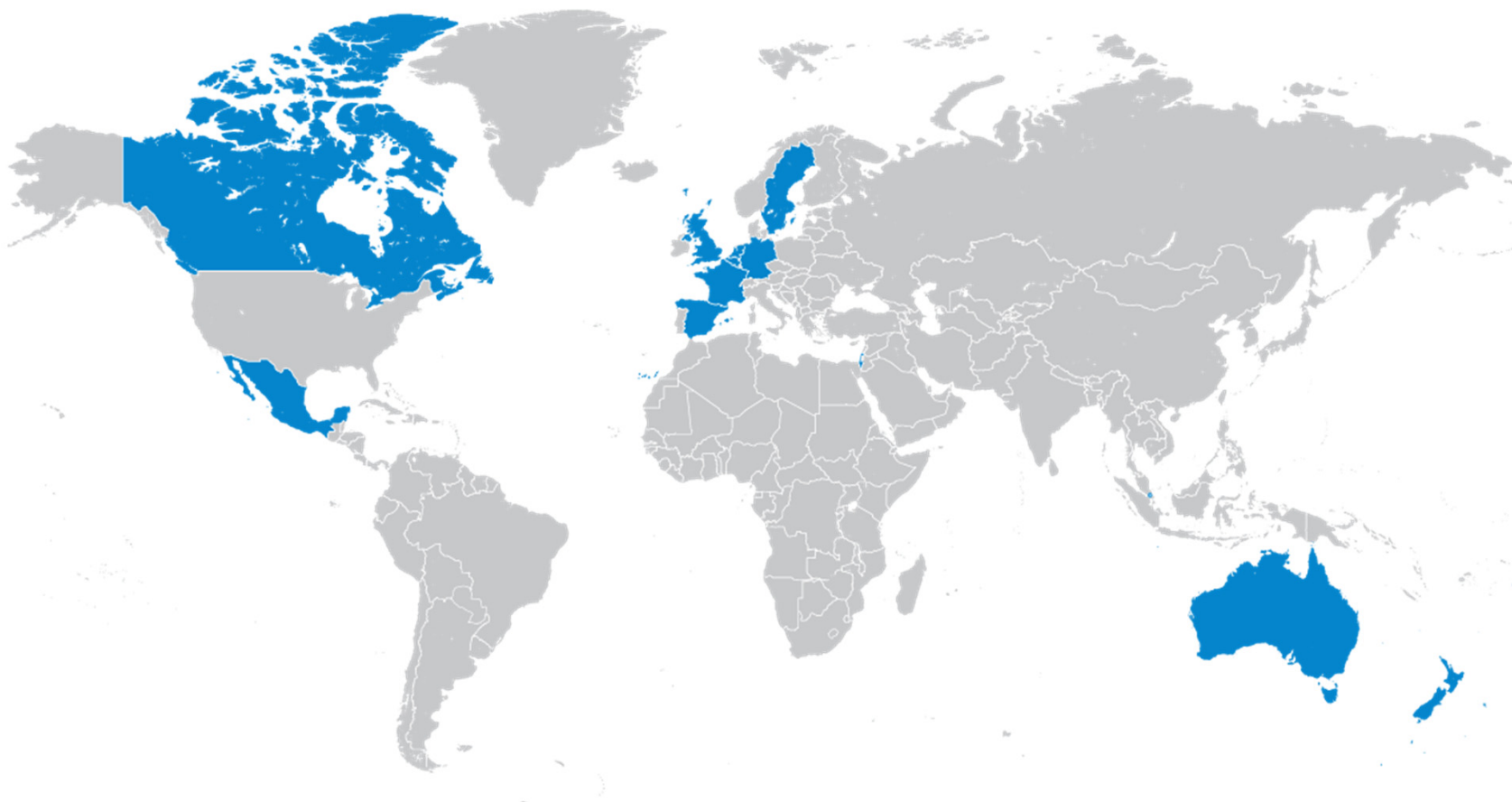
INTERNATIONAL PARTNERSHIPS

S&T develops partnerships with foreign governments and international organizations to enhance scientific and technical knowledge for the global Homeland Security Enterprise.

Australia
Canada
France
Germany
Israel

Mexico
Netherlands
New Zealand
Singapore
Spain

Sweden
United Kingdom
European Commission



5RD Council: US, UK, CAN, AUS, NZ

DISCOVER

*Identify, Analyze,
Strategize*

Share strategic and technical insights to heighten innovation and foresight

CONNECT

*Info Share, Network,
Coordinate*

Link existing and create new networks for forward-thinking RDT&E planning

5RD Council

LEVERAGE

*Forecast, Enhance,
Accelerate*

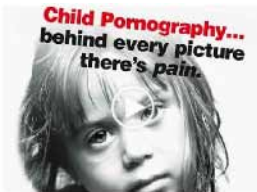
Utilize 5 nation expertise to improve RDT&E strategy, access, and transition

5RD Council Objective

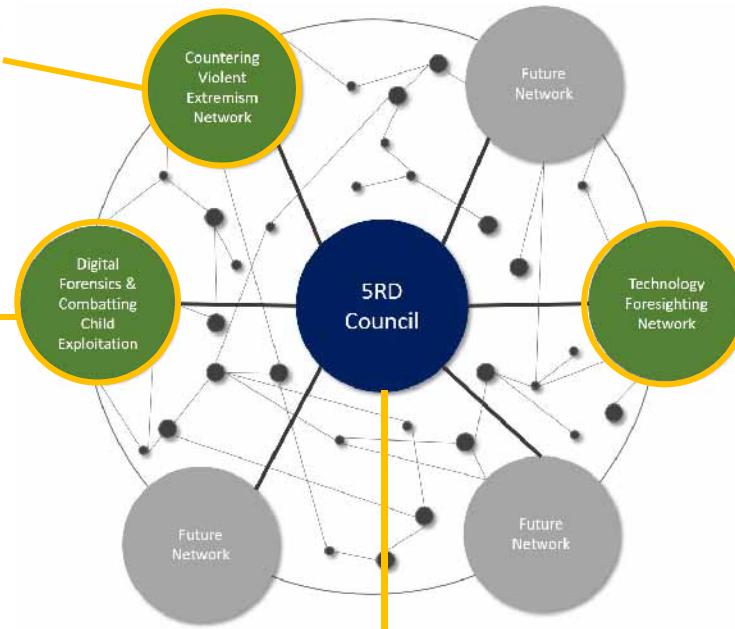
Multilateral forum which informs and coordinates public safety & security research, development, and test & evaluation (RDT&E) to expand capacity and deliver more efficient and cost-effective access to results.

5RD Networks & Outputs

THE FIVE RD RESEARCH WORKSHOP
TO COUNTER VIOLENT EXTREMISM
Hosted by Science and Technology Directorate,
Department of Homeland Security



The DIT Science and Technology Directorate is developing advanced forensic tools and techniques that help U.S. Homeland Security investigators secure suspected children, rescue other children, and protect communities against child predatory activities.



EXPEDITE RESULTS TO OPERATIONS AND POLICY

- **Accelerate** RDT&E coordination and utilization of results/best practices
- **Fast-track** governments' response to emerging global threats
- **Harness** industry innovation for common objectives

ENHANCE CAPACITY FOR TECHNOLOGY FORESIGHTING

- **Leverage** technology, research, and expertise to address longer term technology needs
- **Empower** RDT&E decision makers

CATALYZE NEW TECHNICAL NETWORKS

- Reduce Costs, Accelerate Schedules, Discover Unique Solutions, Leverage Peer Validation, Achieve Multilateral Adoption
- Healthy working relationships among all partners, facilitating frequent, informal dialogue and transparent interactions

Overview of the TFN

Mission Statement: Inform policy and RDT&E decision makers of the results of technology foresight to influence strategic decisions for security and public safety.

Objectives

- Influence security and public safety decision-makers with evidence-based products to shape strategic investments.
- Increase opportunities to leverage shared requirements, share costs, and optimize use of resources across existing FVEY Groups (e.g., TTCP, Emerging Technologies Activity Panel).
- Identify technologies, research, and expertise to address longer-term technology needs.

FIRST YEAR FOCUS AREAS:

- Advanced Materials & Manufacturing
- Autonomous Systems
- Identity Technology / Biometrics
- Automated Intelligence & Quantum

OTHER HIGH IMPACT AREAS:

- Chemical and Biotech
- Augmented, Mixed, and Virtual Reality
- Communications of the Future
- Behavioral Science
- Smart Cities / Smart Homes
- Multi-Spectral Detection
- Space/Space Dependent Infrastructure
- Energy Storage & Harvesting

Doing Business with S&T

S&T seeks to engage innovators and a wide variety of performers to develop science and technology solutions that address real-world threats and hazards.

- **Homeland Security Innovation Program** – based in Silicon Valley, this effort engages technology innovators and investors to solve pressing homeland security challenges
- **S&T's Long Range Broad Agency Announcements** - open invitation to scientific and technical communities to fund pioneering R&D projects
- **S&T's Small Business Innovation Research Program** - awards funds to small businesses to quickly commercialize and deliver operational prototypes
- **EMERGE Accelerator Program** – taps startup community for novel ideas and new technologies
- **Prize Competitions** - incentivizes non-traditional performers to propose innovative solutions
- **SAFETY Act** – offers important legal liability protections for providers of Qualified Anti-Terrorism Technologies
- **Transition to Practice Program** – helps federal laboratories and research centers transition promising solutions for commercialization

Doing Business with S&T



- S&T's website - <http://scitech.dhs.gov>
- Contact DHS **Office of University Programs**:
email: universityprograms@hq.dhs.gov
- www.fbo.gov - Posts DHS S&T and all U.S. government business opportunities
- baa2.st.dhs.gov – Program Portal for DHS's **Broad Agency Announcements** that address needs of DHS S&T technical divisions. Includes the **S&T's Long Range Broad Agency Announcement (LRBAA)**.
- sbir2.st.dhs.gov - Program Portal for DHS's **Small Business Innovation Research (SBIR) Program** posts two solicitations annually seeking technical capabilities that cut across DHS S&T divisions
- safetyact.gov - **SAFETY Act** helps facilitate development and use of qualified anti-terrorism technologies by providing limited liability protection to manufacturers
- www.firstresponder.gov – A collaborative environment for federal, state, local, and tribal first responders to access and leverage federal web services, information on resources, products, standards, testing and evaluation and best practices

Engage With Us!



WEBSITE

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S&T NATIONAL CONVERSATION

<http://scitech.ideascale.com/>