



# DHS and DOE National Laboratories: Innovation through Collaboration

The U.S. Department of Homeland Security (DHS) and the U.S. Department of Energy (DOE) national laboratories share a common commitment: to prevent future attacks against the nation; respond to natural, accidental, and intentional disasters; and advance American prosperity and economic security. DHS and the DOE national laboratories work together to achieve this mission through streamlined access to world-class science and technology capabilities. The Office of National Laboratories (ONL), within the DHS Science and Technology Directorate (S&T), coordinates the communication of Homeland Security Enterprise capability requirements to the networked laboratory capabilities available to both DHS and DOE.

## NATIONAL LABORATORIES: WORLD-CLASS AND MISSION-FOCUSED

Created more than a half-century ago, DOE's 17 national laboratories represent the most comprehensive research system of its kind. These laboratories perform research for DOE and other government agencies, universities, and industry to deliver breakthrough science and technology to meet key national needs. Since the establishment of DHS, DOE national laboratories have provided DHS with a variety of missions and national security capabilities to address homeland security challenges.

## STREAMLINED ACCESS TO SCIENCE AND TECHNOLOGY

DOE national laboratory talents provide DHS access to:

- Technical expertise with a holistic understanding of homeland security challenges, based on experience spanning seven decades of national security work;
- Mission-critical data and insights across federal agencies, DHS components, and first responders at the federal, state, and local levels;
- Research, development, testing, and evaluation of current and future DHS technologies that enable mission breakthroughs;
- Efficient and effective real-time disaster support; and
- Advocacy of the DHS mission and the value of research and development

## FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS: MOBILIZING SCIENTIFIC AND ENGINEERING TALENT

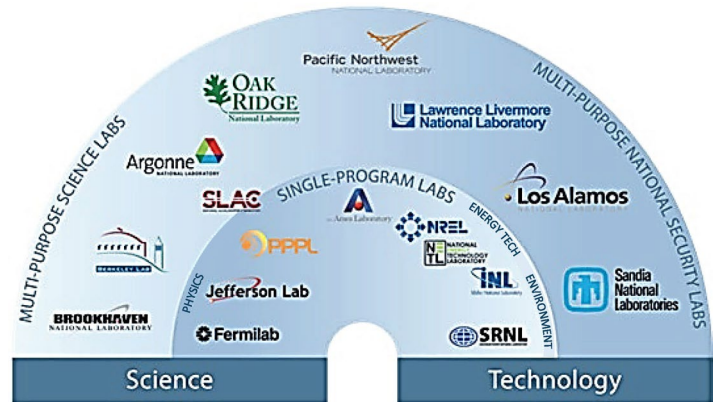
Almost all DOE national laboratories, with the exception of a select few, function as federally funded research and development centers (FFRDC) and are typically managed by industrial, academic, and nonprofit organizations. FFRDCs were chartered before World War II and rose to prominence during the Cold War to bring the best in scientific and engineering capabilities to bear on national security challenges. To sustain high-quality scientific and technical capabilities, FFRDCs are government-owned, contractor-operated entities. Each FFRDC is established in accordance with the Federal Acquisition Regulation with access to capabilities, equipment, and data beyond common government contractual relationships.

## SCIENTIFIC EXPERTISE IN EASY REACH

Congress recognized the valuable synergy between homeland security and the DOE national laboratories when creating DHS: The Homeland Security Act of 2002 authorized DHS to use DOE national laboratories in conducting its mission. DOE and DHS entered into a Memorandum of Agreement on February 28, 2003, laying the groundwork for national laboratories to support DHS research and development through a modified Work for Others process. In 2008, DHS and DOE signed a Master Interagency Agreement that streamlined work initiation even further. Today, the ONL, within the DHS S&T, facilitates the connection between DHS and the national laboratories, allowing for easy exchange between the entities.

## ADVANCING DEVELOPMENT, TESTING, AND EVALUATION

DHS components use DOE and S&T ONL national laboratory's scientific and technical expertise in diverse ways, spanning research, development, testing, and evaluation. Scientists and engineers provide key input to technical visioning and near- and long-term research agendas. This scientific expertise addresses both strategic and tactical needs facing DHS while preparing for the evolving technology and threat landscape. The delivery of expertise between DOE laboratories and ONL has continued to evolve to meet the needs of DHS and other government agencies. For instance, DHS S&T hosts the Research, Development, Test, and Evaluation Summit, which enables scientists from both DOE and ONL laboratories to present their work and its impact on DHS components. Another example is the Subject Matter Expert exchange between scientists from DOE's and S&T's laboratories. This cross-collaboration facilitates the assessment of emerging technologies and threats, enhancing response times to those threats. DHS faces vast technical challenges that require a community of academic, industrial, federal government, and national laboratory collaborators who have a detailed understanding of the mission, are flexible and responsive, and can self-organize. This collaboration fosters peer review and best-in-breed efforts and expands the ability to leverage federal, private, and international investments.



## A NEW WAY TO PARTNER

National laboratories differ from typical government contractors because they are:

- Mostly Government-owned, contractor-operated;
- Aligned with the DHS mission (for example, research and development on resiliency of the energy grid, trace signature detection, and radiological/nuclear materials); and
- Keenly aware of and bringing national laboratory capabilities to bear on DHS mission needs.

To do business with DOE national laboratories, each component enters into an interagency agreement with previously agreed to terms and conditions. Under the authorities outlined above, DHS can access the significant technological expertise within the national laboratory system to help solve its science and technology needs. This enduring partnership enables a nation that is prepared to deter and defeat threats to the homeland.

### For more information, contact:

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