



RESPONDER TECHNOLOGY ALLIANCE

Collaborating to develop technologies that improve the safety and capability of first responders

The Pacific Northwest National Laboratory (PNNL) manages the Responder Technology Alliance (RTA) for the Department of Homeland Security Science & Technology Directorate (DHS S&T) to accelerate the development of and bring to market technology solutions that will improve the capability and safety of responders.

The DHS S&T First Responders Group established the RTA as part of the DHS Next Generation First Responder APEX program to advance technology solutions that

- ▶ improve responder health and safety,
- ▶ enhance responders' ability to save lives, and
- ▶ address complex and changing threat environments.



TECHNOLOGY VISIONING AND FORAGING

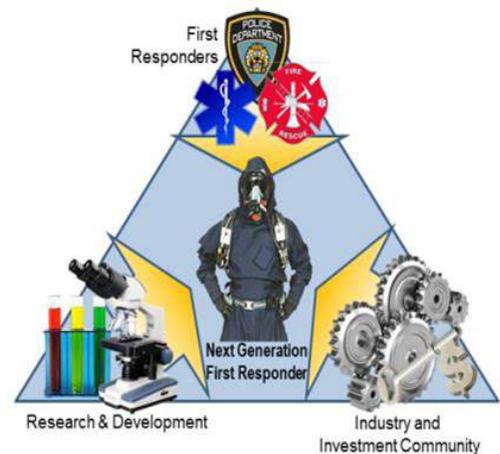
The RTA is conducting market assessments, exploring technologies, and creating visionary concepts to enable a Responder of the Future who is:

- ▶ Fully aware, thanks to a resilient body-worn system of sensors that enhances the individual's situational awareness and aids decision making
- ▶ Protected by next-generation multi-threat personal protective equipment that incorporates thermal, ballistic, stabbing and penetration, and chemical and biological agent protection
- ▶ Connected through secure, integrated voice and data communications technology

UNIQUE PARTNERSHIPS

The RTA is collaborating with first responders, industry, Federal agencies, research institutions, investors, and academia across the nation to identify, analyze, and recommend solutions. RTA represents an alliance of public-private sector partnerships that:

- ▶ Tackles difficult and complex first responder challenges
- ▶ Looks at long-term innovative solutions (5-10-15 years and beyond)
- ▶ Collaborates between first responders, start-up companies, industry, and government
- ▶ Focuses on integrated technology solutions



The RTA integrates the efforts of first responders, research and development, and the industry and investment community

COMPONENTS

The RTA has four major pillars or program areas.

- ▶ **Visionary Design** aims to help the community envision what the first responder of the future will need – What tools and technology? What information and resources? Will the mission and threats be different?
- ▶ **EMERGE** is a Technology Accelerator established in 2015 to help innovators and start-ups bring their technologies to market faster. It focuses on wearable technology, and we hope to have about a dozen companies participate in the program.
- ▶ The **Integrated Systems Engineering and Modeling prototype** is focused on integrated voice and communications technologies to enable a layered approach to first responder communications: from the individual to multi-disciplined responders to vehicles to 911 centers, Forward Command Centers, and State Emergency Operations Centers.
- ▶ The **Responder Information Analysis Center** pilot will be a resource for the first responder community for technology questions, resource guidance, and general insights into emerging trends from the private sector and research institutions.

PATH FORWARD

Near-term goals and activities include:

- ▶ Prototyping and Operational Field Assessment – July 2015
- ▶ Vision Design – ongoing
- ▶ Technology Foraging and Market Assessment – ongoing
- ▶ Transition Path with Industry – ongoing



ABOUT PNNL

Pacific Northwest National Laboratory is a Department of Energy Office of Science national laboratory where interdisciplinary teams advance science and technology and deliver solutions to America's most intractable problems in energy, the environment and national security. PNNL employs 4,900 staff, has an annual budget of nearly \$1.1 billion, and has been managed by Ohio-based Battelle since its inception in 1965.

For more information, please contact:

Steve Stein, Technical Advisor
steve.stein@pnnl.gov
(206) 528-3340

Ann Lesperance, Director of the Northwest Regional Technology Center
ann.lesperance@pnnl.gov
(206) 528-3223


Pacific Northwest
NATIONAL LABORATORY

Proudly Operated by **Battelle** Since 1965

U.S. DEPARTMENT OF
ENERGY