



AROUND THE REGION IN HOMELAND SECURITY

The Northwest Regional Technology Center (NWRTC) is a virtual resource center operated by Pacific Northwest National Laboratory (PNNL) to support regional preparedness, resilience, response, and recovery. The center enables homeland security solutions for emergency responder communities and federal, state, and local stakeholders in the Northwest.

HAPPY NEW YEAR AND WELCOME TO 2022!

On behalf of the NWRTC, I would like to thank you for your continued support to our center and to the partnerships and opportunities we build.



With your help in 2021, we continued to make science and technology connections that enhance preparedness, resilience, response, and recovery regionally and nationally. From virtual tech talks and open house events with sponsors to pilots and technology assessments with our regional partners, we connected with first responders, emergency management, public safety, academia, and the private sector to address technology needs. The year 2021 also marked a [powerful remembrance of 9/11](#) and reflection on how first responder concerns continue to be addressed today. Your participation made these connections more impactful.

In 2022, we anticipate more outreach and information sharing, including virtual summits and tech talks addressing current and emerging threats and opportunities. Our center's power is in our partnerships, and we look forward to reconnecting with you to build smarter and safer solutions.

OPPORTUNITIES

Events current at time of publication. Have a virtual resource or event to share? Email us!

- February 7-9 – [14th Annual Nuclear Deterrence Summit](#)
- February 16 – [COVID-19 Recovery Call, Pacific NorthWest Economic Region series](#)
- February 3 - [IPAWS Equips Alerting Authorities with Tools to Protect the Public](#)
- March 29-30 – [Innovations in Climate Resilience](#)
- May 4-5 – [Energy Storage Systems Safety & Reliability Forum](#)

CONTACT

- Want to know more? Visit us at pnnl.gov/projects/nwrtc.
- Contact the NWRTC with questions and comments at nwrtc@pnnl.gov.



To all of our partners in the Pacific Northwest, across the nation, and around the world who contribute to our collective success—thank you and we look forward to working with you again soon.

Ann Lesperance
NWRTC Director, PNNL

SECURITY, ENERGY, TREE TECH EARN NATIONAL AWARDS

[Three innovations developed at PNNL](#) were named winners in the 2022 Federal Laboratory Consortium (FLC) for Technology Transfer Awards.



[The Millimeter-Wave Shoe Scanner](#) uses imaging to detect concealed objects in footwear. It could potentially be integrated into the floor of a body-scanning portal, which PNNL also developed. Anyone who travels can recognize the potential benefit: Passengers would not need to remove their shoes to pass through airport security, thus reducing a bottleneck in screenings.

[Home Energy Score \(HEScore\)](#) is a free, web-based tool for homeowners who want to monitor the energy efficiency of their homes. HEScore generates a customized rating for a home's energy use.

Lastly, the Tree Micro-Injector delivers nutrition, pesticides, and fungicides faster and easier than similar commercially available injectors.

This year's FLC winners will be recognized at the 2022 FLC national meeting April 6, 2022, in Cleveland, Ohio. The awards are among the most reputed honors in the technology transfer field, recognizing federal laboratories and their industry partners for technology transfer achievements. PNNL has received 98 FLC awards since the program's inception in 1984.

TEAM EXAMINES HUMAN-MACHINE TEAMING IN LAW ENFORCEMENT

Human-machine teaming may sound like something from the distant future, but many technological capabilities already exist. In "[Human-Machine Teaming: A Vision of Future Law Enforcement](#)" in *Domestic*

Preparedness, PNNL's Corey Fallon, Kris Cook, and Grant Tietje (retired) examine how scientists and engineers are working to take these capabilities and turn them into true machine teammates.

While many existing artificial intelligence (AI) tools have one or two helpful capabilities, it is not enough to function as a teammate. Autonomous systems like drones and self-driving cars are useful but these systems on their own are not teammates. They require the human to regularly monitor their activity to make sure they are functioning properly.

"Human-machine teaming is taking the benefits that AI has to offer and pairing these with human skills like creativity and adaptability," said Fallon. "Rather than blindly performing tasks, a good machine teammate will learn and work proactively to support their human teammate."

To learn more, read the [PNNL web feature](#).



INNOVATIONS IN CLIMATE RESILIENCE CONFERENCE

In collaboration with Department of Energy national laboratories, Battelle is presenting the Innovations in Climate Resilience March 29-30, 2022 in Columbus, OH. The event will convene government leaders, entrepreneurs, and innovators to explore breakthroughs in technology, science, policy, and infrastructure that will help mitigate the threats to our environment, health, communities, national security, and economic well-being from a changing climate. Early-bird registration ends January 24, 2022. [Click to learn more](#).

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